

**Institutional Change Around Sport Policy: Passage of Youth Sports Concussion Legislation  
Across States**

by

Di Lu

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Doctoral Committee:

Associate Professor Kathryn L. Heinze, Chair  
Associate Professor Katherine M. Babiak  
Professor Gerald F. Davis  
Assistant Professor Sara Soderstrom  
Professor Marvin Washington, University of Alberta

Di Lu

[landylu@umich.edu](mailto:landylu@umich.edu)

ORCID iD: 0000-0002-4861-7638

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## **DEDICATION**

I dedicate this dissertation to the following people:

To my beloved husband and my best friend, Shihong (Edmond) Huang,

Thank you for your unconditional love, encouragement, and support throughout this entire process. Thank you for always believing in me even in those difficult times. This journey would not have been possible without you standing firmly on my side. Thank you and I love you!

To my loving and supportive parents, Jingxin Lu and Jing Hu,

It's been a huge blessing and honor to be your daughter. No words will ever be able to express how thankful I am to have the two best parents in the world. Thank you for all your love, encouragement, and support throughout my entire life. My love for you can never be quantified!

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## **ABSTRACT**

Sport management scholars have increasingly examined institutional change in sport. This line of work tends to focus on isomorphism in the adoption of new organizational practices or structures (Cunningham, 2009; Kikulis, 2000; Slack & Hinings, 1994), and often depicts sport organizations as passive recipients of broader field-level institutional demands. We lack understanding of institutional factors affecting variation in sport policy adoption across geographic boundaries and the role of agency in the change process. This dissertation aims to extend our understanding of institutional change around sport policy, corresponding variations in organizational responses, and the role of agency in institutional processes by investigating 1) the local community-level institutional factors on the varied rate of sport policy adoption across geographic boundaries (Study 1), and 2) the activities and tactics by which institutional entrepreneurs create and promote the passage of new sport policies (Study 2). Empirically, I study these institutional dynamics in the context of the passage of youth sport concussion legislation across U.S. states. First, I provide background and historical overview of my context around concussion in sports in Chapter 2. Then, in Study 1 of this dissertation (Chapter 3), I conducted an event history analysis to investigate the effects of institutional triggers, and cultural, political, and social factors, within and between states, on the speed of concussion legislation adoption. My quantitative analysis shows that a series of intrastate factors—state norms, disruptive events, and state advocacy—have a significant influence on state policy adoption. Supporting qualitative data provide additional insight around the role of disruptive

events and local advocacy in the adoption of concussion legislation. This study contributes to a better understanding of cross-state diffusion of institutional change in sport, and heterogeneity in the process. In Study 2 of this dissertation (Chapter 4), I conducted multi-case study to explore the activities and tactics by which coalitions of individuals and organizations create and promote the passage of state-level concussion legislation. My findings show that institutional entrepreneurs engaged in diverse types of activities and tactics to advance the passage of concussion legislation. First, they were tasked with political activity, namely coalition building, in which they employed tactics including prioritizing recruitment for knowledge and legitimacy, diversified membership, involving skeptics, and developing a shared vision to build a broad-based coalition. Next, coalition actors moved to technical activity that concentrated on building a concussion legislation template. Important tactics included leveraging expertise, strategic compromise, and using neutral and inclusive language. These institutional entrepreneurs also became involved in cultural activity that focused on framing and justifying the adoption of concussion legislation. Relevant tactics included episodic framing (i.e., highlighting a particular individual's story) and embedding the issue in a broader value context. This study sheds light on the multifaceted nature and temporal dynamics underlying institutional change in sport. Collectively, Study 1 and Study 2 contribute to prior sport management studies focused on the constraining effects of institutional forces on organizational processes (Berrett & Slack, 1999; Silk & Amis, 2000), by shedding light on how institutional entrepreneurs can re-evaluate and capitalize on local institutional factors to initiate institutional change in sport.

## **CHAPTER I**

### **Introduction**

Sport management scholars have increasingly examined institutional change in sport (Cousens & Slack, 2005; Heinze & Lu, 2017; O'Brien & Slack, 2003; Washington, 2004; Washington & Ventresca, 2004, 2008). This line of research tends to focus on isomorphism in the adoption of new organizational practices or structures (Cunningham, 2009; Danisman, Hinings, & Slack, 2006; Kikulis, 2000; Slack & Hinings, 1992, 1994; Stevens & Slack, 1998; Washington & Patterson, 2011), and often depicts sport organizations as passive recipients of broader field-level institutional demands—either coerced into similar forms (Danylchuk & Chelladurai, 1999; Vos, Breesch, Késenne, Hoecke, Vanreusel, & Scheerder, 2011), or mimicking others for legitimacy (Babiak & Trendafilova, 2011; Silk, Slack, & Amis, 2000).

Less is known about institutional change around sport policy and corresponding variations in organizational responses. New policies or legislation, including in sport, represent formal arrangements and regulations that provide guidelines for accepted norms within organizational fields and are thus important carriers of institutional change (Hoffman & Ventresca, 2002; Gilardi, 2004; Sine & David, 2003). Several recent studies have suggested that institutional pressures at the local geographic community level help account for variations in organizational practice or policy adoption across communities (Marquis & Battilana, 2009; Marquis, Glynn, & Davis, 2007; Marquis & Lounsbury, 2007; Marquis, Lounsbury, & Greenwood, 2011; Pe'er & Gottschalg, 2011). Hence, organizations, including state legislatures,

may respond differently to sport policy changes in the field, depending on the local, community-level institutional context. In the first study of the dissertation (Chapter 3), I examine the effects of institutional factors within a local and immediate institutional environment (Marquis & Battilana, 2009; Marquis et al., 2007), on the rate of sport policy adoption across geographic boundaries. This investigation extends beyond the isomorphism hypothesis in prior institutional studies in sport management (Cunningham & Ashley, 2001; Pentifallo & VanWynsberghe, 2012; Slack & Hinings, 1992, 1994) to shed light on heterogeneity within the broader process of institutional change in sport.

Institutional change, including via sport policy innovation, generates opportunities for entrepreneurial action (Child, Lu, & Tsai, 2007; Wijen, & Ansari, 2007). The adoption of new policies or legislation is often driven by collective action among individual and organizational leaders (Gilligan, 1997; Schlager, 1995; Wijen, & Ansari, 2007). These collaborators act as institutional entrepreneurs by mobilizing resources and skills to create, justify, and legitimize new institutions and social arrangements (Battilana, Leca, & Boxenbaum, 2009; Greenwood & Suddaby, 2006; Maguire, Hardy, & Lawrence, 2004). However, we lack knowledge of how institutional entrepreneurs create and promote the adoption of new sport policies. In the second study of the dissertation (Chapter 4), I explore the activities and tactics of institutional entrepreneurs in passing new sport policy. This examination adds to the expanding literature around institutional analysis in sport management (Calvin, Abiodun, & Marvin, 2018; Heinze & Lu, 2017; Patterson, Arthur, & Washington, 2016; Washington & Patterson, 2011) to underscore the importance of agency in institutional processes in sport.

I conduct such institutional analysis in the context of adoption of youth sport concussion legislation across states in the United States (U.S.). Sport-induced concussions represent an

important public health issue because of the large number that occur each year and the potential negative long-term health effects of brain injury (Guskiewicz et al., 2005; Moser & Schatz, 2002). Developments in recent decades have indicated institutional change in the U.S., namely through the involvement of new actors and organizations; new knowledge, practices, and policies; increased media attention, and government involvement around concussion in sports (Heinze & Lu, 2017). One of the most noteworthy aspects of this trend is a nationwide concussion regulatory change, specifically the passage of youth sport concussion legislation across all 50 states (Ellenbogen, 2014). In 2009, Washington<sup>1</sup> (the state) and Oregon respectively passed the first two concussion legislation in the country: the Zackery Lystedt Law and the Max Conradt Law, named after two young athletes who were permanently disabled after sustaining concussions in football and returning to the game too soon. By 2014, all 50 states and the District of Columbia had passed similar youth sport concussion legislation, designed to improve education and prevention of concussion in young people.

The adoption of concussion legislation across states provides a valuable context to examine local community-level institutional factors around, and approaches to, sport policy change. Following Marquis and colleagues (Marquis & Battilana, 2009; Marquis et al., 2007; Marquis & Lounsbury, 2007), in this dissertation, each U.S. state is conceptualized as a community. Change is happening at the field level, yet factors in the more immediate, community-level institutional environment (e.g., state norms and local advocacy) may play roles in determining which states enact policies sooner (Soule & King, 2006; Soule & Zylan, 1997; Vogus & Davis, 2005). Further, early evidence has pointed to the roles of institutional entrepreneurs— coalitions of individuals and organizations—in the creation and passage of

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<sup>1</sup> For the remainder of the paper, Washington refers to the state.



concussion legislation in Washington and Oregon. Thus, empirically, this dissertation focuses on unpacking 1) community-level institutional factors (e.g., cultural, political, and social pressure and triggering events) associated with variation in states' adoption of concussion legislation (Chapter 3); and 2) specific activities and tactics institutional entrepreneurs have employed in the passage of concussion legislation (Chapter 4). Figure 1 illustrates the structure of the dissertation.

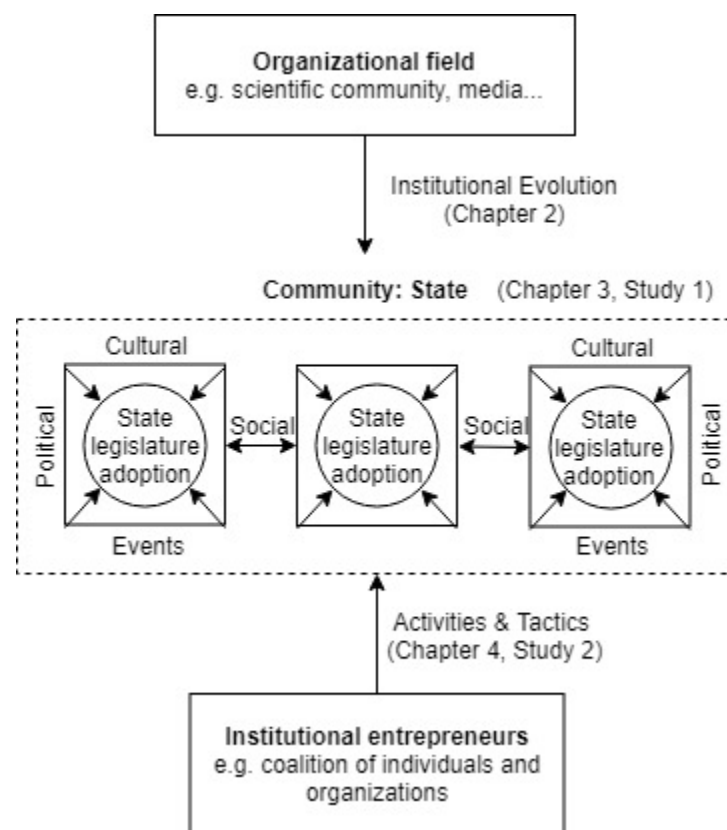


Figure 1. Structure of the Dissertation

Different methodologies are employed in this dissertation to examine these questions. In the first study of the dissertation, I conduct a quantitative, event history analysis to examine the effects of institutional factors within the local community-level context on the timing of sport

policy adoption across states (Chapter 3). In the second study, I use qualitative multi-case study approach to unpack the sport policy creation process and explore how institutional entrepreneurs create and promote the passage of concussion legislation (Chapter 4). The theoretical foundation of this dissertation is discussed below, followed by the overarching contributions of this work and a summary of each chapter.

### **Theoretical Foundation**

Institutional theory posits that organizations operate in, and are influenced by, institutional environments composed of peer organizations, regulatory agencies, constituents, and others (DiMaggio & Powell, 1991; Meyer & Rowan, 1977). These environments structure and guide organizational behavior as a result of processes associated with three institutional pillars: the regulatory, referring to the legal aspects of institutional controls of organizations, such as policy, legislation, and mandates (e.g., Lounsbury, 2001; Skille, 2009; Slack & Hinings, 1994); the normative, which influences organizational behavior via occupational and professional standards (e.g., Babiak & Wolfe, 2009; Trendafilova, Babiak, & Heinze, 2013); and the cognitive, which focuses on taken-for-granted conceptions and conventions (e.g., Beckert, 2010; Davis & Greve, 1997). Change occurs when there are shifts in what is deemed legitimate or appropriate in an institutional environment; then, corresponding practices and policies emerge among organizations and across states (Ruef & Scott, 1998; Schneiberg & Soule, 2005; Sine & Lee, 2009). For example, a series of legislative actions, such as the enactment of disability and Medicare programs, gradually contributed to institutional change around Social Security (Béland, 2007). In the policy context, the enactment of workmen's compensation legislation across states followed from changing beliefs about labor and social protection (Fishback &

Kantor, 2007).

Organizations, including state legislatures, seeking to establish or maintain legitimacy often adopt new practices and policies in response to different institutional factors. Sport management scholars have traditionally focused on homogeneity and the role of broader field-level coercive forces (i.e., dependence on other organizations), mimetic forces (i.e., imitation of other organizations), and normative forces (i.e. professions and socialization) in promoting organizational isomorphism (Babiak & Trendafilova, 2011; Kikulis, 2000; Slack & Hinings, 1994; Stevens & Slack, 1998). For instance, Babiak and Trendafilova (2011) found that the organization-wide adoption of environmental management initiatives in professional sport was driven, in part, by teams and leagues communicating with and mimicking one another. The isomorphism concept has also been used to explain isomorphic tendencies in American and Canadian collegiate athletic programs (Cunningham & Ashley, 2001; Danylchuk & Chelladurai, 1999), the low representation of black coaches in collegiate athletics (Cunningham, Sagas, & Ashley, 2001), and increasing formalization within a Canadian amateur ice hockey organization (Stevens & Slack, 1998).

This research stream possesses three major limitations. First, regarding the locus of change, sport management studies assuming an institutional theory perspective have fallen short in illuminating sport policy adoption across geographic boundaries. Second, with respect to change outcomes, research has overemphasized homogeneity (e.g., Cunningham & Ashley, 2001; Stevens & Slack, 1998) while neglecting to examine variations in the adoption of new sport approaches (Kostova & Roth, 2002; Lounsbury, 2008; Westphal, Gulati, & Shortell, 1997). Third, fewer sport management studies have expanded on the role of agency in the change

process to explore in depth how individual and/or collective actors influence organizational behavior (Barley & Tolbert, 1997; Hardy & Maguire, 2008).

Investigations into organizational variation and change have focused recently on a local, community-level institutional context and its influence on organizational practice or policy adoption (Marquis & Battilana, 2009; Marquis, Davis, & Glynn, 2013; Marquis et al., 2007; Marquis et al., 2011); however, sport management scholars have yet to explore this community-based nature of practice or policy adoption. In the first study of this dissertation, I examine the effects of community-level institutional factors on the rate of sport policy adoption across states (Chapter 3). In assessing state variation in sport policy adoption, several local institutional factors appear relevant. Intra- and inter-state factors both play roles in determining which states enact policies sooner. Intra-state factors include aspects of state norms or culture, such as a history of policy-making (Boehmke & Skinner, 2012; Walker, 1969) and key events (Hoffman, 1999; Zietsma & Lawrence, 2010), and political factors, such as local advocacy (Mintrom & Vergari, 1996). At the inter-state level, states may be influenced by peer states in their geographic region (Berry & Berry, 1990; Walker, 1969). Thus, in the first study of this dissertation (Chapter 3), I apply event history analysis, a quantitative data procedure, to identify the influences of triggering events and social, cultural, and political factors within and between states on concussion legislation adoption. Further, I draw on qualitative data and analyses to provide additional insight into the role of factors revealed in the first stage.

To better account for the role of agency in the change process, institutional scholars have developed the concept of institutional entrepreneurship, whereby purposeful actors utilize different resources and skills to spearhead change (Garud, Hardy, & Maguire, 2007; Leca, Battilana, & Boxenbaum, 2008; Maguire et al., 2004). Despite its prominence in the broader

management discipline, institutional entrepreneurship has been less examined in sport management research. Studies of institutional entrepreneurship in management have investigated a range of institutional types that can be broadly categorized as fields (Dorado, 2013; Hwang & Powell, 2005; Lawrence & Phillips, 2004), practices (Greenwood & Suddaby, 2006; Greenwood, Suddaby, & Hinings, 2002; Lounsbury & Crumley, 2007), technologies (Garud, Jain, & Kumaraswamy, 2002; Munir & Phillips, 2005; Wang & Swanson, 2007), and forms/structures (Perkmann, 2002; Perkmann & Spicer, 2007; Tracey, Phillips, & Jarvis, 2011). Less attention has been paid to the emergence of new government policies in sport, a type of regulatory change that constitutes key facet of institutional space (Pacheco, York, Dean, & Sarasvathy, 2010). In particular, an understanding of specific activities and tactics surrounding the innovation of new sport policies remains elusive.

In addition, many regulatory changes represent complex social processes that often require collaboration among numerous individuals and/or organizations (Hargrave, & Van de Ven, 2006; Schlager, 1995; Wijen & Ansari, 2007). This wide group of individuals and organizations can be termed as *institutional entrepreneurs* (Battilana et al., 2009; Garud et al., 2007; Möllering, 2007). In the second study of the dissertation, I investigate how institutional entrepreneurs create and promote the passage of new sport policies (Chapter 4): using qualitative multi-case study design, I explore how institutional entrepreneurs promote concussion legislation change with a focus on involved parties' activities and tactics.

### **Contributions of the Dissertation**

This dissertation advances sport management scholarship in several ways. First, this dissertation contributes to the literature on institutional change in sport, focused on new

organizational practices and structures (Babiak & Trendafilova, 2011; Danisman et al., 2006; Slack & Hinings, 1992, 1994; Stevens & Slack, 1998; Trendafilova et al., 2013), by shedding light on the roles of institutional forces in sport policy adoption. Second, this dissertation advances institutional studies in sport management, centered on how broader field-level institutional pressures influence or constrain organizational behavior (Babiak & Trendafilova, 2011; Heinze & Lu, 2017; Kikulis, 2000; Washington & Ventresca, 2004, 2008), by elucidating the effects of local community-level institutional factors (Marquis et al., 2013; Marquis et al., 2007; Marquis et al., 2011) on variations in sport policy adoption across geographic boundaries. Third, my investigation on intra- and inter-state factors (e.g., cultural, social, and political pressures and triggering events) in the adoption of sport policies addresses the appeal to “deeply examine a sport field landscape” (Washington & Patterson, 2011, p.10). Fourth, this dissertation draws on the concept of institutional entrepreneurship (Battilana et al., 2009; Garud et al., 2007; Tracey et al., 2011), which has been less applied in sport management scholarship (Washington & Patterson, 2011), to expand on the role of agency in institutional change in sport. Fifth, this dissertation contributes to providing a micro-level understanding of the specific activities and tactics in promoting sport policy change. Further, by demonstrating that the various activities and tactics institutional entrepreneurs engaged in shifted in a temporal order, this dissertation sheds light on the multifaceted nature and temporal dynamics associated with the process of institutional entrepreneurship in sport.

This dissertation also has important empirical implications. By focusing on the enactment of youth sport concussion legislation, this work augments the larger body of scholarship on concussion in sports focusing on the physical effects, diagnosis, prevention, and treatment of concussions (Maroon, Mathyssek, & Bost, 2014; McCrea et al., 2003; McCrea, Hammeke,

Olsen, Leo, & Guskiewicz, 2004), by adding knowledge on relevant sport policy and institutional developments. This research also sheds light on how sport organizations interface with policy issues in addressing a public health challenge (Santo & Mildner, 2010). More broadly, this research provides actionable strategies and tactics on how to construct a broad-based, effective coalition, build a policy template, aggregate divergent interests, justify the adoption of new sport policies, and make it appealing and compelling to wider audiences. Practitioners and policy makers can use these tactics to fulfill their political or legislative agendas, and initiate broader social change.

### **Summary of the Dissertation**

In Chapter 2, I provide background on the organizational field around concussion in sports. I begin by reviewing fundamental scientific knowledge regarding sport-related concussions (SRC). Then, I chronicle institutional change around concussion in sports over time (between 1880 and 2014) with a focus on how the field has evolved alongside the involvement of new organizations and actors, changing responses from key organizations and stakeholders, and normative and regulatory changes. Next, I elaborate on the background of substantial regulatory change in the organizational field around nationwide youth sport concussion legislation to contextualize Study 1 (Chapter 3) and Study 2 (Chapter 4) in this dissertation.

In Chapter 3, I examine the effects of local community-level institutional factors, within and between states, on the rate of youth sport concussion legislation adoption. Using an event history analysis, results indicate that a variety of intrastate factors—state norms, disruptive events, and local advocacy—exerted significant influences on the timing of sport policy adoption, but interstate social networks did not. Supporting qualitative data provide additional

insight into the relationship between disruptive events and local advocacy in the adoption of concussion legislation. This study contributes to a better understanding of community-level institutional factors in the diffusion of sport policy across geographic boundaries and offers an approach for future research investigating variations in sport policy or practice adoption.

In Chapter 4, I delve deeper into how institutional entrepreneurs promote sport regulatory change. Specifically, I explore the activities and tactics by which coalitions of individuals and organizations create and promote the passage of state-level concussion legislation. My findings show that institutional entrepreneurs engaged in three main types of activities. First, they were tasked with political activity, namely coalition building, in which they employed tactics including prioritizing recruitment for knowledge and legitimacy, diversified membership, involving skeptics, and developing a shared vision to build a broad-based coalition. Next, coalition actors moved to technical activity that concentrated on building a concussion legislation template. Important tactics included leveraging expertise, strategic compromise, and using neutral and inclusive language. These institutional entrepreneurs also became involved in cultural activity that focused on framing and justifying the adoption of concussion legislation. Relevant tactics included episodic framing (i.e., highlighting a particular individual's story) and embedding the issue in a broader value context. This study sheds light on the agentic dimension underlying institutional change in sport by exploring how institutional entrepreneurs create and propagate new sport policies. In Chapter 5, I provide a summary of the dissertation, and address the limitation, practical implications, and future directions.



## **CHAPTER II**

### **Empirical Context: Concussion in Sports**

In this chapter, I provide background on the organizational field around concussion in sports. The remainder of this chapter is structured as follows. I start by reviewing basic scientific knowledge and concepts relevant to SRC. Then, I chronicle the institutional change around concussion in sports over time (between 1880 and 2014)); major changes and events are summarized in Figure 2 and Table 1. I delineate how the field evolved through the involvement of new organizations and individuals, key organizational and stakeholders' changing responses, and normative and regulatory changes. Next, I examine a prominent regulatory change in the field, nationwide youth sport concussion legislation, on which this dissertation focuses. I identify major field conditions as potential precursors to this substantial institutional change along with key individuals and organizations involved in the passage of concussion legislation.

#### **Sport-Related Concussions (SRC)**

In this section, I provide an overview of basic scientific knowledge of SRC, including the term's definition, symptoms and diagnosis, effects, and recovery.

##### **Definition of SRC**

The definition of SRC has evolved over time. An early definition was based on a loss of consciousness following a direct hit to the head (Cantu, 1986; Kontos, Deitrick, Collins, &

Mucha, 2017); however, the definition was considered limited in accounting for the symptoms and causes of concussions (Aubry et al., 2002; McCrory et al., 2005). First, early criteria required a loss of consciousness (i.e., a player getting knocked out or blacked out), but research has shown that concussions can occur with or without loss of consciousness (Budinger, 2016; Kelly et al., 1991). In fact, statistics have revealed that fewer than 10% of SRC are accompanied by unconsciousness (CDC, 2010; Lau, Kontos, Collins, Mucha, & Lovell, 2011). Second, this early definition only emphasized the occurrence of SRC as a result of a direct hit to the head. Subsequent studies have found that concussions can also be caused by a blow or fall involving other parts of the body, leading to rapid acceleration and deceleration of the brain (McCrory et al., 2005).

Considering the simplicity of this early definition, more recent definitions of SRC have focused on altered mental or neurological functioning that may or may not involve a loss of consciousness and may result from a direct hit to the head or a blow to another part of the body, resulting in force that causes the brain to slide back and forth within the skull (Broglia et al., 2014; Giza et al., 2013). In sports concussion research, the International Conference on Concussion in Sport proposed a widely used definition; per the most updated 2016 consensus statement on concussion in sport, SRC is defined as “a traumatic brain injury induced by biomechanical forces” that may result in “a range of clinical signs and symptoms that may or may not involve loss of consciousness” and may be “caused either by a direct blow to the head, face, neck or elsewhere on the body with an impulsive force transmitted to the head” (McCrory et al., 2017, p. 2).

## **Symptoms and Diagnosis of SRC**

Symptoms of SRC can fall into four categories: 1) cognitive, such as difficulty in recalling recent events, vision disturbance, or sensitivity to light or noise; 2) physical, such as headaches, dizziness, vomiting, nausea, or fatigue; 3) emotional, such as sadness, irritability, anxiety, or depression; and 4) sleep-related, such as drowsiness, difficulty in falling asleep, or sleeping more or less than usual (CDC, 2010; Clark & Guskiewicz, 2016; Halstead & Walter, 2010).

Diagnosis of SRC often relies on measurement tools developed to evaluate cognitive functioning and motor control in athletes suspected of sustaining a concussion (Clark & Guskiewicz, 2016). For instance, the Standard Assessment of Concussion (SAC) is commonly used to detect athletes' cognitive functioning when they are susceptible to the acute effects of SRC (Broglia et al., 2014; Clark & Guskiewicz, 2016). The SAC can be administered with minimal training and cost and is thus considered a convenient and practical sideline assessment tool (Notebaert & Guskiewicz, 2005). Because concussive injuries may also lead to deficits in motor control, assessment of motor control systems can facilitate SRC diagnosis (Broglia, Eckner, Paulson, & Kutcher, 2012; Sosnoff, Broglia, & Ferrara, 2008). For instance, the Balance Error Scoring System, which measures athletes' abilities to hold different static stances, is often employed to assess balance on the sideline (Bell, Guskiewicz, Clark, & Padua, 2011). Although numerous concussion assessment tools and tests have been developed for concussion diagnosis, a single, uniformly accepted assessment tool capable of identifying all patients with SRC does not yet exist (Broglia et al., 2014).

## **Effects of SRC**

SRC can cause a variety of short- and long-term health effects that influence a person's thinking or cognitive (e.g., memory and reasoning), physical condition (e.g., headaches, vomiting), language (e.g., speaking, communication), and emotional behavior (e.g., anxiety, anger, and other mood changes) (Moser & Schatz, 2002). Short-term effects of SRC include headaches, delayed cognitive responses, impaired memory, trouble learning, and irritability (Macciocchi, Barth, & Littlefield, 1998).

The effects of an individual's first concussion may not be that serious; an immediate second concussion often carries more severe consequences. Second Impact Syndrome (SIS) is defined as "rapid cerebral edema and herniation after a second head injury" (Bowen, 2003, p.288). SIS often occurs when a player who has suffered a concussion sustains another before the symptoms of the initial injury have subsided (Bowen, 2003). SIS can result in brain swelling and bleeding that can cause permanent disability or even death (Bowen 2003; Cantu, 1998; Wetjen, Pichelmann, & Atkinson, 2010).

Repeated concussions may have long-term cognitive and neurobiological effects, such as cognitive impairment (Guskiewicz et al., 2005), depression (Guskiewicz et al., 2007), and dementia (McKee et al., 2009). Chronic traumatic encephalopathy (CTE) may develop in more severe cases (Stein, Alvarez, & McKee, 2015; Stern et al., 2011). CTE is a degenerative condition associated with a history of repetitive brain injuries (Stein et al., 2015; Stern et al., 2011). Athletes with this condition have been found to experience progressive neurologic declines in memory, mood, and movements (Stern et al., 2011). Some may develop more serious depression or dementia (McCrory, Meeuwisse, Kutcher, Jordan, & Gardner, 2013; Omalu,

Hamilton, Kamboh, DeKosky, & Bailes, 2010). Research has revealed evidence of CTE in contact sports, such as boxing, football, and ice hockey (Omalu et al., 2010; Stern et al., 2011).

### **Recovery of SRC**

Studies have identified several factors that may influence concussion recovery, such as a person's age, concussion history, or pre-existing mental and physical conditions (CDC, 2010; Field, Collins, Lovell, & Maroon, 2003; Mooney, Speed, & Sheppard, 2005). For instance, extensive research has found that high school athletes demonstrate slower recovery from SRC compared to collegiate and professional athletes (CDC, 2010; Field et al., 2003; Pellman, Lovell, Viano, & Casson, 2006). Some studies have also suggested that concussed players who sustained a concussion in the past may take longer to recover than those without any concussion history (Colvin et al., 2009; Covassin, Stearne, & Elbin, 2008).

### **Historical Overview: Institutional Change Around Concussion in Sports**

The issue of SRC is not new (Harrison, 2014), but more substantial institutional change began in the 2000s (Heinze & Lu, 2017). In this section, I provide an historical overview of the extent of changes that have taken place in the organizational field around concussion in sports since the late 19<sup>th</sup> century.

Following Hoffman (1999) and Kostova and Roth (2002), I define the organizational field as forming around a central issue for a collective of organizations and actors: concussion in sports (Heinze & Lu, 2017). This issue includes the diagnosis, treatment, prevention, and management of concussions for players in all sports and at all age levels. In accordance with Hoffman's conceptualization of a field, over time, the issue of concussion in sports became salient to the interests and objectives of various individuals and organizations: active and retired

athletes at all levels (youth, collegiate, and professional), team physicians, and coaches; schools, colleges, and universities; all levels of sport organizations, including sports governing bodies (SGBs); scientific communities of concussion researchers and experts as well as academic and research institutions; athletic trainers and athletic trainer associations; physicians specializing in brain injury and healthcare systems; state and national government entities, such as state legislatures, the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), and the Congress; the media; concussion and brain injury advocacy groups and/or organizations; and corporations involved with concussions, such as companies that produce products intended to potentially decrease head injuries.

The proceeding historical review covers four periods as shown in Figure 2. In the first stage (1880-1906), although the organizational field around concussion in sports had not yet emerged, early records of concussion-related fatalities began to be noticed on the football field. In the second stage (1907-1970), the organizational field around concussion in sports began to grow; some coaches, sports medicine scientists, and SGBs joined the field and developed new helmets and safety rules targeted at protecting athletes from brain injuries. In the third stage (1971-1999), the organizational field around concussion in sports continued to expand, with more scientists and SGBs at different levels becoming involved in SRC research and management. In the fourth stage (2000-2014), the field around concussion in sports experienced a more substantial and significant change accompanied by a proliferation in scientific research and media reports on SRC revealing discoveries about the long-term risks of concussions. New constituencies and actors, such as government entities, corporations, and retired athletes, also joined the field. Increasing normative pressures expressed through new knowledge, media

attention, and key stakeholders' changing opinions promoted significant regulatory action in the form of nationwide concussion legislation change. Table 1 presents a chronology of events.

Stage 1 1880-1906	Stage 2 1907-1970	Stage 3 1971-1999	Stage 4 2000-2014
<u>Field</u>	<u>Field</u>	<u>Field</u>	<u>Field</u>
Not emerged	Emergent	<ul style="list-style-type: none"> <li>• scientists</li> <li>• early activist</li> <li>• SGB</li> <li>• active players</li> <li>• coaches</li> </ul>	<ul style="list-style-type: none"> <li>• scientific community</li> <li>• media</li> <li>• sports orgs</li> <li>• government entities</li> <li>• advocacy orgs</li> <li>• active &amp; retired players</li> <li>• coaches</li> <li>• corporations</li> </ul>
<u>Key events</u>	<u>Key events</u>	<u>Key events</u>	<u>Key events</u>
concussion fatalities in football (e.g., Harold Moore, 1905)	concussion fatalities in football and other sports (e.g., soccer, hockey)	high-profile concussion injury events in professional sports	high-profile concussion fatalities at all age levels
<u>Org responses</u>	<u>Org responses</u>	<u>Org responses</u>	<u>Org responses</u>
<ul style="list-style-type: none"> <li>• suppression of football movement</li> <li>• the founding of NCAA</li> <li>• approve rule changes targeted at reducing general injuries</li> </ul>	SGB adopted a few rule changes more directly targeted at reducing head injuries	<ul style="list-style-type: none"> <li>• SGB start to support research on SRC</li> <li>• SGB get tougher on vicious plays</li> </ul>	<ul style="list-style-type: none"> <li>• SGB: adopt stricter rules &amp; practices to prevent SRC</li> <li>• Gov: host hearings, fund research</li> <li>• Corporations: Develop new tech/products to prevent SRC</li> </ul>
	<u>New technology</u>	<u>New knowledge</u>	<u>Normative changes</u>
	scientists: focus on upgrading helmets to reduce head injuries	<ul style="list-style-type: none"> <li>• scientists: helmets won't protect concussions;</li> <li>• start to examine the long-term effects of SRC and SIS</li> </ul>	<ul style="list-style-type: none"> <li>• scientists: find evidence of long-term effects of SRC</li> <li>• increasing media attention</li> </ul>
		<u>Advocacy</u>	<u>Advocacy</u>
		Early activists: advocate for change in SGB	Advocacy orgs: lobby for policy change
		<u>Athletes' responses</u>	<u>Athletes' responses</u>
		Treat SRC lightly in general	<ul style="list-style-type: none"> <li>• Take SRC more seriously</li> <li>• Take legal action against SGB</li> </ul>
			<u>Regulatory change</u>
			Nationwide youth sport concussion legislation change

Figure 2. Institutional History of Concussions in Sports

Table 1. Chronology of Events

Year	Event
1880-1906	Football was played violently in American colleges. The brutality of the game often resulted in serious injuries and fatalities. For instance, the 1905 football season resulted in 19 player deaths and 137 serious injuries. Concussion was noted as one of the causes of fatalities.
1895	In response to the excessive violence, Harvard University led the charge of abolishing football on campus, and more schools followed.
1906	The IAAUS (the NCAA) was founded and approved around 30 safety rule changes to reduce brutal injuries in football.
1910	Among the 14 fatalities on the football field, 7 died of concussion-related injuries.
1931	Soccer player John Thompson died of a concussion-related injury.
1939	The NCAA required football players to wear helmets to play in college football.
1943	The NFL made it mandatory to wear helmets in the game.
1955	The AFCA placed much of the blame of football injuries on the inadequate construction of helmets. The Cornell Aeronautical Laboratory developed a new helmet to dissipate the impacts of football tackles.
1964	The NCAA required that no player may deliberately use helmet or head to hit an opponent.
1983	Dr. Bennett argued years of concussions may leave serious consequences for the brain.
1986	Researchers Mueller and Schindler questioned the effectiveness of helmets to prevent SRC.
1988	Mike Harden of the Broncos was fined \$5,000 for a vicious hit on the Seahawk Steve Largent who ended up with a concussion.
1990s	Multiple and repeated concussions led to the premature retirement of four high-profile NFL players: Mike Webster (1991), Al Toon (1992), Merrill Hoge (1994), and Steve Young (1999).
1994	The NFL founded the MTBI Committee to study the impacts of concussions in NFL players.
1995	Early concussion activist Leigh Steinberg organized a concussion seminar and advocated the NFL to adopt more stringent safety rules and develop new concussion practices.



1997	The NFL and NHL Players Association established the NFL-NHL Players Association Concussion Program.
1999	The NCAA funded a long-term concussion study with sports medicine scientists Dr. Kevin Guskiewicz and Dr. Michael McCrea.
2000s	High-profile former NFL (e.g., Mike Webster, Justin Strzelczyk) and collegiate players (e.g., Owen Thomas) died and were subsequently diagnosed with CTE. Several youth players (e.g., Zackery Lystedt, Evan Coubal) suffered SIS that resulted in death or permanent disability.
2002	Dr. Bennet Omalu discover the first case of CTE in a former NFL player's brain.
2003-2007	More researchers, such as Dr. Guskiewicz and Dr. McCrea, found evidence that repetitive head injuries may cause negative long-term effects on individuals' health.
2009	The House Judiciary Committee held congressional hearings on the legal issues related to head injuries sustained by NFL players.
2009	Washington passed the first youth sport concussion law in the country.
2010	The NFL founded a new concussion committee, the Head, Neck and Spine Committee.
2014	All 50 states including the District of Columbia adopted youth sport concussion legislation.

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## **Stage 1: 1880-1906**

In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the norms of American football projected violence and brutality (Guilianotti, 2013). Although the organizational field around concussion in sports did not yet exist, SRC incidents were noticed in brutal injuries and fatalities on the football field. The increasing violence in football also compelled some universities to close their football programs. To preserve the game of football, the National Collegiate Athletic Association (NCAA) was founded to reform the safety rules of collegiate football.

In the late 19<sup>th</sup> century, American football, a hybrid of English rugby and soccer, began to develop in several elite U.S. universities (Harrison, 2014). Initially, football was a highly risky pastime that was often played violently as exemplified in the tactic of the flying wedge,

introduced in 1892 in a collegiate football game between Harvard and Yale (McQuilkin & Smith, 1993). In performing the flying wedge, 11 offensive players all collided at full speed and threw their entire weight against one opponent who bore the brunt of the attack (McQuilkin & Smith, 1993). Because of the inherent brutality of this move, the flying wedge often resulted in serious and fatal accidents on the field (Harrison, 2014; Moore, 1984). A news report more than a century ago remarked, *“Every time a youth steps on the football field, he assumes nearly the same risk that a soldier does on a battlefield. ... Everyday (sic) one can hear of broken heads and necks, fractured skulls, wrenched legs, and dislocated shoulders”* (“Change the Football Rules,” 1893, p.2).

### ***Key events***

SRC incidents began to be noted in early reports of brutal and even fatal injuries on the football field. For instance, the 1905 football season resulted in 19 player deaths and 137 extreme injuries; several students died of serious concussions. For example, in a game against New York University in 1905, 19-year-old Harold Moore of Union College was struck in the head by an opponent and died soon following a severe concussion (Watterson, 1995). William Harvey, a former Penn Football player, reflected the concussion he sustained in a football game in 1883: *“The only serious injury I received was in the game with Harvard in 1883, when in a scrimmage behind the goal I was knocked insensible. ... During the summer following, I was sick with blood gathering in the head and threatened with congestion of the brain. My illness was attributed by the Doctors (sic) to the above incident”* (Harrison, 2014, p.822).

### ***Organizational responses***

In response to increasing violence and brutality on the football field, many colleges strove to suppress football by disbanding football teams at their institutions (Watterson, 2002).

For instance, Charles W. Eliot, then-president of Harvard University led the charge of abolishing football; he noted, “*The game of football grows worse and worse as regards foul and violent play and the number and gravity of the injuries that the players suffer. It has become perfectly clear that the game as now played is unfit for college use*” (“President Eliot on Athletics,” 1895, p.4).

To save the game of football from abolition, under the help of President Roosevelt, the Intercollegiate Athletic Association of the United States (IAAUS), later renamed as the NCAA, was founded in 1906 to modify football safety standards and rules. IAAUS approved more than 30 playing rule changes, including outlawing the flying wedge and other dangerous mass plays (Harrison, 2014). However, these safety rules were not targeted at reducing SRC but rather at decreasing brutal athletic injuries in general.

## **Stage 2: 1907-1970**

Even after the founding of the NCAA and the passage of football safety rules in 1906, concussion injuries were far from eliminated. The next 60 years witnessed the emergence of an organizational field around concussion in sports. Severe and fatal concussion incidents occurred in football and other sports (e.g., soccer, boxing, ice hockey). In an effort to decrease head injuries, some SGBs approved rule changes aimed at protecting athletes from brain injuries. Some coaches and sports medicine scientists also shifted their attention to new technology and developed new helmets to protect athletes’ heads from serious injuries.

### ***Key events***

In the second stage, serious and fatal concussion incidents plagued football and other sports. The incidence of concussions in football continued to grow. For instance, during the 1910 football season, seven of 14 fatal incidents were attributable to concussion-related injuries

(“Football Dead 14,” 1910). The number of athletes who sustained severe concussions also increased, constituting a much higher proportion of injuries than in previous years (“Football Dead 14,” 1910). Although football resulted in the most concussion casualties, SRC also occurred in other sports, such as boxing, horse racing, soccer, and ice hockey. For instance, in 1931, a leading soccer goalie John Thompson was kicked in the head and died of a serious concussion and fractured skull (“40 Players Killed,” 1931). In 1968, professional ice hockey player Bill Masterton, of the Minnesota North Stars, died of massive brain injuries. Serious concussion injuries also occurred in boxing, amounting to a couple per year (Eskenazi, 1968).

### ***Organizational responses***

During this stage, some SGBs implemented more explicit rule changes to protect athletes from brain injuries. In 1939, the NCAA mandated that all football players wear helmets when playing college football (Daneshvar et al., 2011). ). In 1943, football helmets were required in the National Football League (NFL). In 1964, the NCAA stated that no football player could deliberately use his helmet or head to hit an opponent (Williamson, 1964).

### ***New technology***

In an effort to decrease head injuries, some coaches and sports medicine scientists in the 1950s and 1960s turned their attention to innovative technologies by upgrading helmets to protect athletes. In 1955, in its annual report on football deaths, the American Football Coaches Association (AFCA) blamed many football injuries on inadequate helmet construction. According to Jack Curtice, President of the AFCA, *“The rising toll in football fatalities is disturbing. Maybe we need a real fine study of football equipment of the helmets, the shoulder pads, and all the rest”* (Johnston, 1955, p.317). In the same year, the Cornell Aeronautical Laboratory, a center for research in football equipment, developed a more efficient helmet to

reduce impact in football (Johnston, 1955). The success of Cornell's helmet research expanded into other sports, including polo, boxing, hockey, and auto races; several sports medicine scientists also focused on upgrading helmets to protect athletes in the following years. In 1961, Dr. Floyd Eastwood of Los Angeles State College said: "*There was a steady increase year by year in fatalities from blows on the head, and future improvements in the helmet seem to be necessary*" ("Coaches Propose Safety," 1961, p.46). In 1968, at the University of Florida, Dr. Robert Cade invented a new hydraulic football helmet, which dissipated the force of energy upon impact and protected the head from serious injury (Amdur, 1968).

### **Stage 3: 1971-1999**

In the last three decades of the 20<sup>th</sup> century, the organizational field around concussion in sports continued to grow. Several high-profile concussion injury events in professional sports called more attention to the seriousness of SRC. In response to this increasing interest, some SGBs founded concussion committees and began to support concussion research. Some professional SGBs enacted stricter regulations around vicious plays that could cause concussions. In the research sector, more scientists became involved in research on SRC and started to investigate the long-term effects of concussions. Early concussion activists also joined the field to advocate for change in SGBs. Despite the seemingly considerable attention to SRC, players still tended to take concussions lightly.

#### ***Key events***

Severe concussion incidents in professional sports garnered increasing attention during this stage. Professional football continued to be played violently. Quarterbacks, running backs, and wide receivers often became targets of attack, and players in these positions frequently sustained one or multiple concussions. For instance, after the first quarter of a game between the

Jets and the Steelers in 1989, several players were taken out with concussions: the Jets' receiver Al Toon and quarterback Pat Ryan and the Steelers' quarterback Bubby Brister (Wallace, 1989). Serious concussions also occurred in professional ice hockey and baseball; in a baseball game in 1987, Ray Knight of the Baltimore Orioles was struck in the head during a collision and suffered a severe concussion ("Knight Has Concussion," 1987).

The 1990s also saw several high-profile concussion injuries in the NFL. Four prominent players chose to retire after suffering multiple concussions throughout their professional careers, including the Kansas City Chiefs' center Mike Webster (1991), New York Jets' star receiver Al Toon (1992), Chicago Bears' running back Merrill Hoge (1994), and San Francisco 49ers' quarterback Steve Young (1999). These prominent concussion injuries and subsequent exits called further attention to the issue of concussion in sports (Heinze & Lu, 2017). As noted by Dr. Jeffrey Barth, a neuropsychologist at the University of Virginia, "*Concussions are a hot topic because of these high-profile cases[.] ... if Aikman had a knee injury before the Super Bowl, we'd be talking knees like crazy*" (Farber, 1994, p. 39).

### ***Organizational responses***

During this stage, some SGBs, such as the NFL, National Hockey League (NHL), and NCAA, began to fund research on SRC. In 1994, the NFL founded the Mild Traumatic Brain Injury (MTBI) Committee to investigate the impacts of concussions in NFL players. In 1997, the NFL and NHL Players Association established the NFL-NHL Players Association Concussion Program to manage concussions using a scientific approach. In 1999, the NCAA funded a long-term concussion study with Dr. Kevin Guskiewicz of the University of North Carolina (UNC), director of UNC's Sport-Related Traumatic Brain Injury Research Center, and Dr. Michael McCrea, director of brain injury research at the Medical College of Wisconsin.

Further, some professional SGBs became stricter on plays that could result in concussions. For instance, in a game between the Seattle Seahawk and the Denver Broncos, the Seahawk receiver Steve Largent was knocked out of the game with a concussion; his opponent Mike Harden was fined \$5,000 for “unnecessary viciousness” (“Bronco Is Fined,” 1988). The National Basketball Association (NBA) also strengthened rules around violent plays. For instance, Rick Mahorn from the Pistons was fined \$5,000 for elbowing Mark Price of the Cavaliers, who sustained a concussion (“NBA Fines Mahorn,” 1989).

### ***New knowledge***

In the research sector, SRC received greater attention from sports medicine scientists and neurologists, whose findings elicited new knowledge around SRC. Some researchers questioned the effectiveness of helmets in preventing concussions. Dr. Frederick Mueller, a sports injury expert from UNC, and Richard Schindler, assistant director of the National Federation of State High School Associations (NFHS), argued that helmets may not help reduce the number of concussion injuries because “*Helmets may give rise to a sentiment that the head was so well protected that it was invulnerable, which in turn encouraged hit’em in the numbers*” (Rogers, 1986, p.A00026).

Scientists also began to consider the potential long-term effects of SRC and the seriousness of SIS. Dr. Donald Bennett, a neurologist at the University of Nebraska contended that years of concussions may have serious consequences on the brain (Bennett, Fuenning, Sullivan, & Weber, 1980). In the early 1980s, the death of professional boxer Willie Classen led Dr. Bennet Derby of New York University to host seminars on neurological assessment of concussions inside a boxing ring. According to Dr. Derby, “*When a fighter receives a concussion and the opponent continues to beat on him, the opponent could damage the fighter*” (Neumann,

1989, p.87). Dr. Derby pointed out that a secondary hit to the head in a short period of time may result in more serious and longer-lasting consequences. He recommended that once a fighter sustained a concussion, the boxer should not be allowed to continue to play.

### ***Advocacy***

Some early concussion activists joined in the field during this stage, advocating for change in SGBs. A leading activist was Leigh Steinberg, an agent for numerous NFL players, many of whom had suffered multiple concussions. Beginning in 1994, Steinberg publicly criticized the way the NFL managed SRC. As Steinberg noted, *“It is a horrendous thought, but it might take someone to die on the field before the league takes this issue seriously”* (Freeman, 1997, p.10). In 1995, Steinberg organized a concussion seminar and invited medical experts from around the country. With these experts’ support, Steinberg argued the NFL should adopt more stringent rules to outlaw helmet-to-helmet tackling and develop new concussion practices, such as mandatory medical counseling, a better concussion grading system, and sideline concussion evaluation by healthcare professionals (Heinze & Lu, 2017; Smith, 1995).

### ***Athletes’ responses***

Despite growing attention to SRC, key stakeholders and active players continued to underestimate the seriousness of concussions. Several professional football players recalled having played in the 1980s and 1990s, a period when players were rarely concerned with concussions. Upon sustaining a concussion, athletes explained, *“You got your bell rung. And unless you liked being called frilly names, you got back on the field as soon as you could locate it”* (Cook, 2012, p.A31). For some players, even after suffering concussions, they chose to return to the game in which they had been hurt. New York Giants’ quarterback Dave Brown, *“I would*



*have gone back in the next play. I would have known what the risk was, but it wouldn't have mattered. I wanted to go back in”* (Freeman, 1994, p.B00029).

#### **Stage 4: 2000-2014**

Since the 2000s, the field around concussion in sports has undergone substantial institutional change. A series of concussion-related fatalities among former professional and collegiate players provided scientific evidence of CTE associated with repeated head injuries. Academic research on SRC has expanded in kind, revealing new knowledge of the long-term risks of concussions. Media reports around concussion in sports have proliferated as well. With these normative changes, the boundaries of the field extended to include government entities, business corporations, concussion advocacy organizations, and retired athletes. Greater awareness of the long-term effects of SRC has led to sweeping changes: Congressional hearings; individual lawsuits at the professional, collegiate, and high school levels; development of new concussion practices; and significant regulatory evolution in the form of nationwide youth sport concussion legislation change, which is the topic of this dissertation.

#### ***Key events***

Serious and fatal high-profile concussion incidents continued to occur at all age levels during this stage. On the professional level, between 2001 and 2015, 14 high-profile former NFL players, such as Mike Webster (2002), Justin Strzelczyk (2004), and Terry Long (2005), died and were subsequently diagnosed with CTE, a progressive and incurable brain disease caused by repeated head trauma or concussions. CTE was identified in the deceased collegiate athletes as well. For instance, in April 2010, 21-year-old Owen Thomas from the University of Pennsylvania football team committed suicide. Researchers from Boston University discovered evidence of early CTE in his brain (Schwarz, 2010b). During this same period, several youth

players (e.g., Zackery Lystedt and Max Conradt) suffered SIS that resulted in death or permanent disability. For instance, in a September 2010 football game, 11-year-old Evan Coubal sustained a second concussion before the symptoms of the first one were cleared, and died two days later (Schwarz, 2010c). These disruptive concussion incidents at all age levels spurred more research on the long-term effects of SRC and drove sport organizations to implement new policies, practices, and rules to manage concussions.

### ***Normative changes***

During this stage, new scientific knowledge and increasing media coverage ushered in normative changes. Throughout the past two decades, a group of sports medicine researchers and neurologists have uncovered evidence of the long-term effects of SRC. In 2002, Dr. Bennet Omalu, a forensic pathologist and neuropathologist at the Allegheny County coroner's office, performed an autopsy of Mike Webster (legendary Pittsburgh Steelers' center for 15 seasons) and discovered the first case of CTE in a former professional football player's brain (Omalu et al., 2005). In subsequent years, Dr. Omalu found evidence of CTE in the brains of athletes including Terry Long, Andre Waters, Justin Strzelczyk, and Tom McHale. Mounting pathological evidence of CTE has suggested a possible link between prior participation in football and the severe brain disease. As noted by Dr. Omalu, "*This is irreversible brain damage. It's most likely caused by concussions sustained on the football field*" (Schwarz, 2007). Following Dr. Omalu, other researchers, such as Dr. Guskiewicz, Dr. McCrea, and Dr. Ann McKee (neuropathologist at Boston University), found evidence that repetitive head injuries may exert accumulative, negative long-term effects on individuals' health, including cognitive impairment, mood changes, depression, and dementia (Guskiewicz et al., 2005; Guskiewicz et al., 2007; McCrea et al., 2003).

The issue of concussion in sports also received enormous media attention and was profiled on leading national news outlets, such as the *New York Times* (NYT), the *Los Angeles Times* (LAT), and *Sports Illustrated* (SI). As shown in Figure 3, compared with 218 articles on concussion in sports published in the NYT in the prior stage, 2088 articles were identified in this period. Sports media also began to express greater sensitivity toward brain injuries. Since 2007, NYT sports reporter Alan Schwarz has written more than 120 articles to expose the seriousness of SRC, which earned him a Pulitzer Prize nomination. Extensive scientific research and media reports on sport concussions has amplified normative pressure for sport organizations to develop new concussion practices and rules.

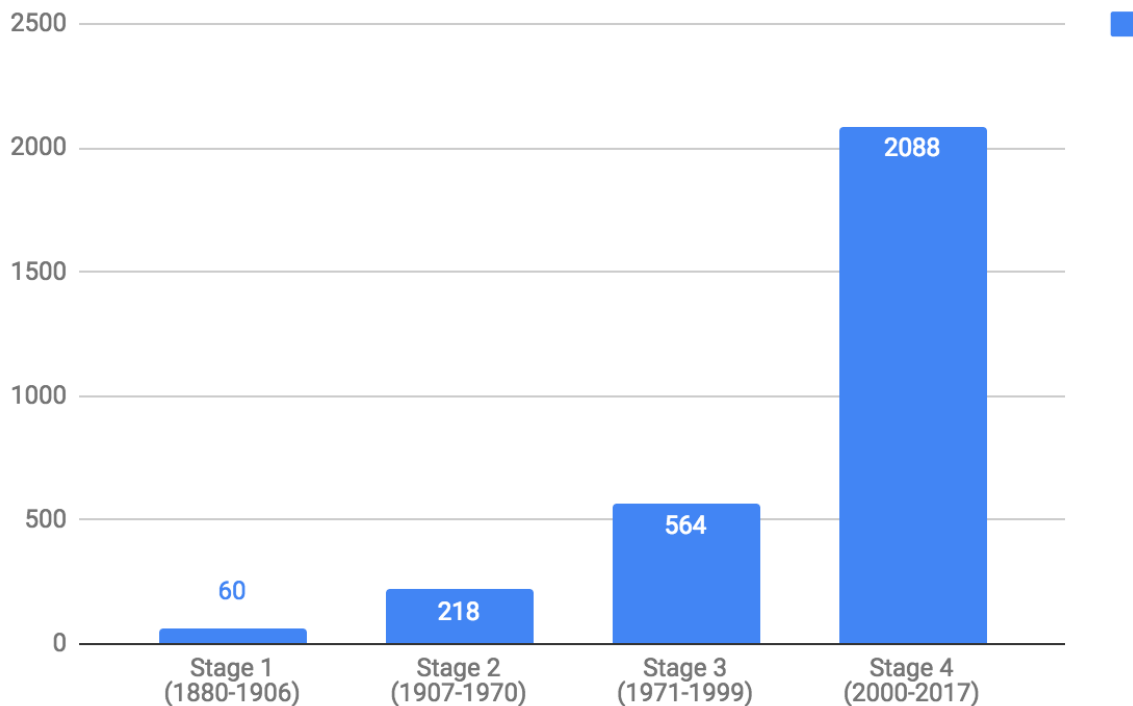


Figure 3. Media Reports on Concussions in Sports

### *Organizational responses*

Evidence of enduring effects of repeated concussions prompted SGBs at all levels to devote greater efforts to managing brain injuries. In 2010, the NFL abolished the old MTBI committee, which had raised many questions around conflict of interest among its employees, and founded a new concussion committee, the Head, Neck and Spine Committee, composed of independent brain injury doctors and experts unaffiliated with the league to make decisions on SRC issues (Schwarz, 2010a). On the youth sport level, in the same year, USA Football amended rules for illegal hits to prevent the shoulder or forearm from being used to target players' heads. SGBs also interacted in other ways; in 2014, the NFL partnered with the Fédération Internationale de Football Association (FIFA) and several other international SGBs to conduct research examining when athletes can safely return to play after having potentially sustained a concussion (Belson, 2014).

During this stage, the boundaries of the field widened to involve more organizations, such as government entities and business corporations. On the government sector, in 2009, the House Judiciary Committee held Congressional hearings on legal issues related to head injuries sustained by NFL players and questioned the NFL's handling of active and retired players with SRC (Schwarz, 2009a). The involvement of government entities also introduced more funding opportunities for concussion-related research. In 2008, the NIH provided a \$100,000 grant to Boston University's Concussion Research Center to examine the effects of repetitive head trauma on former football players. Leading business corporations also partnered with SGBs in pursuit of new technologies, equipment, and/or products to better protect the brain. For instance, in 2013, General Electric established a partnership with the NFL on a 4-year, \$50 million initiative focused on developing a new imaging technology to detect concussions (Battista,

2013).

### ***Advocacy***

During this stage, more concussion advocacy organizations joined the field, such as Brain Injury Association of each state, Concussion Legacy Foundation, and BrainLine. These organizations dedicated themselves to solving the concussion crisis and increasing awareness of brain injury through medical research, education, and policy development. For instance, the Concussion Legacy Foundation, founded by Dr. Chris Nowinski and Dr. Robert Cantu in 2007, dedicated itself to enhancing public awareness on how concussions should be understood, handled, and prevented in sports.

### ***Athletes' responses***

During this stage, as the serious nature of head injuries became better understood, players began to express greater concern over the risks of concussions and were more willing to such injuries. Eagles running back, Brian Westbrook, shared, *"I'm more concerned about how things will happen for me in the future, how having concussions now will affect me 20, 30 years from now"* (Schwarz, 2009b, p.A1). Giants defensive end Justin Tuck said, *"Guys have to change their mentality. We've got to really start taking care of each other. There's got to be something in your mind that says, 'I shouldn't be hitting this guy in his head and leading with my head'"* (Rhoden, 2009, p.SP7).

Many former football players at the professional, collegiate, and even high school levels took legal action to encourage SGBs to strengthen their policies and practices to prevent head injuries. On the professional level, thousands of former NFL players filed lawsuits against the NFL and claimed the league was negligent in its handling of concussion-related brain injuries. On the collegiate level, several college athletes filed class-action suits alleging the NCAA was

negligent in its management of concussions in collegiate sports (Vecsey, 2011). Even at the youth sport level, some former high school football players began to file lawsuits against the state-level high school associations for their lack of protection against concussions (Strauss, 2015).

### **Regulatory Change: Youth Sport Concussion Legislation**

During the late 2000s, the field around concussion in sports progressed from normative changes to a significant regulatory change, which is the focus of Study 1 (Chapter 3) and Study 2 (Chapter 4) in this dissertation. In 2009, Washington and Oregon passed the first two youth sport concussion legislation in the country. Initiatives spread across the country. By 2014, all 50 states including the District of Columbia had passed similar youth sport concussion laws (See Figure 4 and 5). The concussion legislation in general mandated education for athletes, coaches, and parents, immediate removal from play for any athlete suspected of a concussion during a game or practice, and proper medical clearance before the athlete could return to play (Ellenbogen, 2014). For instance, the concussion legislation in Washington included 5 key elements: 1) Requiring school districts board of directors to work with state-level athletic association to develop concussion guidelines and educational programs; 2) mandatory consent form signed by youth athletes and parents on a yearly basis; 3) immediate removal from play during a game or practice if a concussion is suspected; 4) written clearance by a licensed healthcare provider for return to play; and 5) uniformity of rules for all schools that use public land (Washington Youth Sports Head Injury Policies of 2009). The concussion legislation was adopted swiftly and broadly across the country. In comparison, it took 16 years for 22 states to enact statewide bicycle helmet laws for children; it took 46 years for 48 states to have universal or partial motorcycle helmet

laws; it took 12 years for 34 states to have primary seat belt laws for front occupants; it took 8 years for 17 states to require schools to have automated external defibrillator (AED). In this section, I outline youth sport concussion legislation change with a focus on the field conditions that may serve as an impetus for the passage of concussion legislation and the key individuals and organizations involved in this regulatory change.

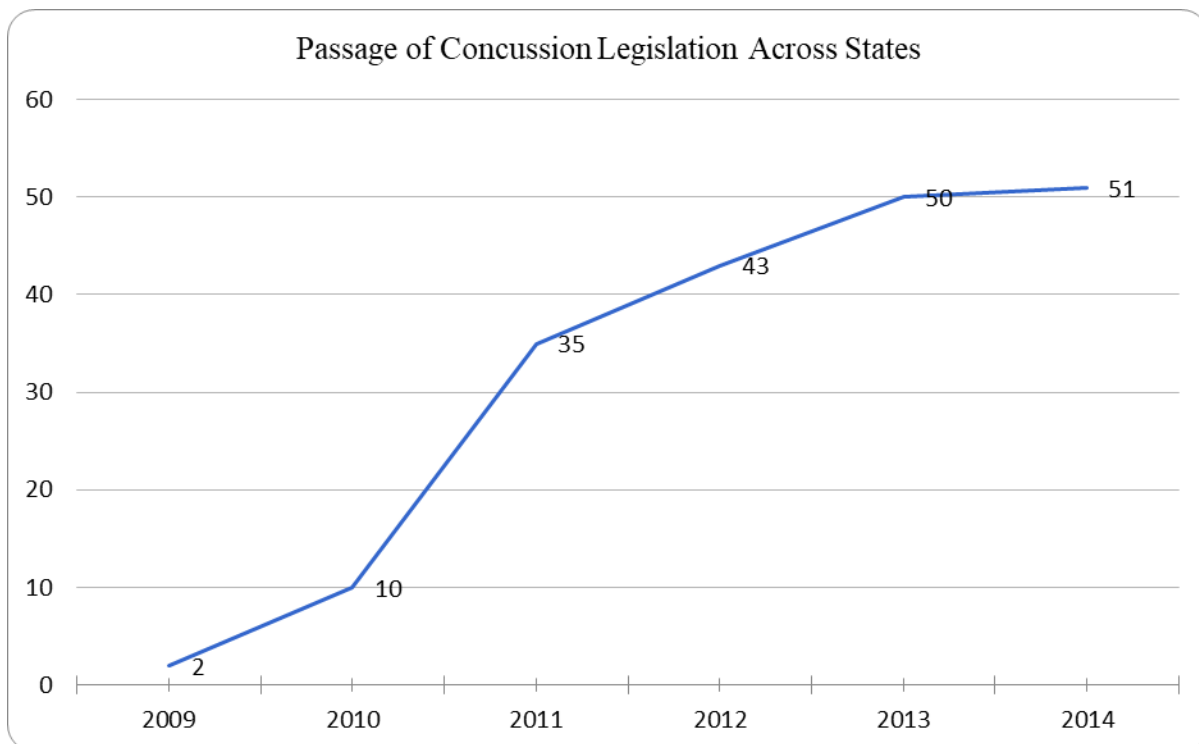


Figure 4. Passage of Concussion Legislation Across States (Cumulative Adoption Rate)

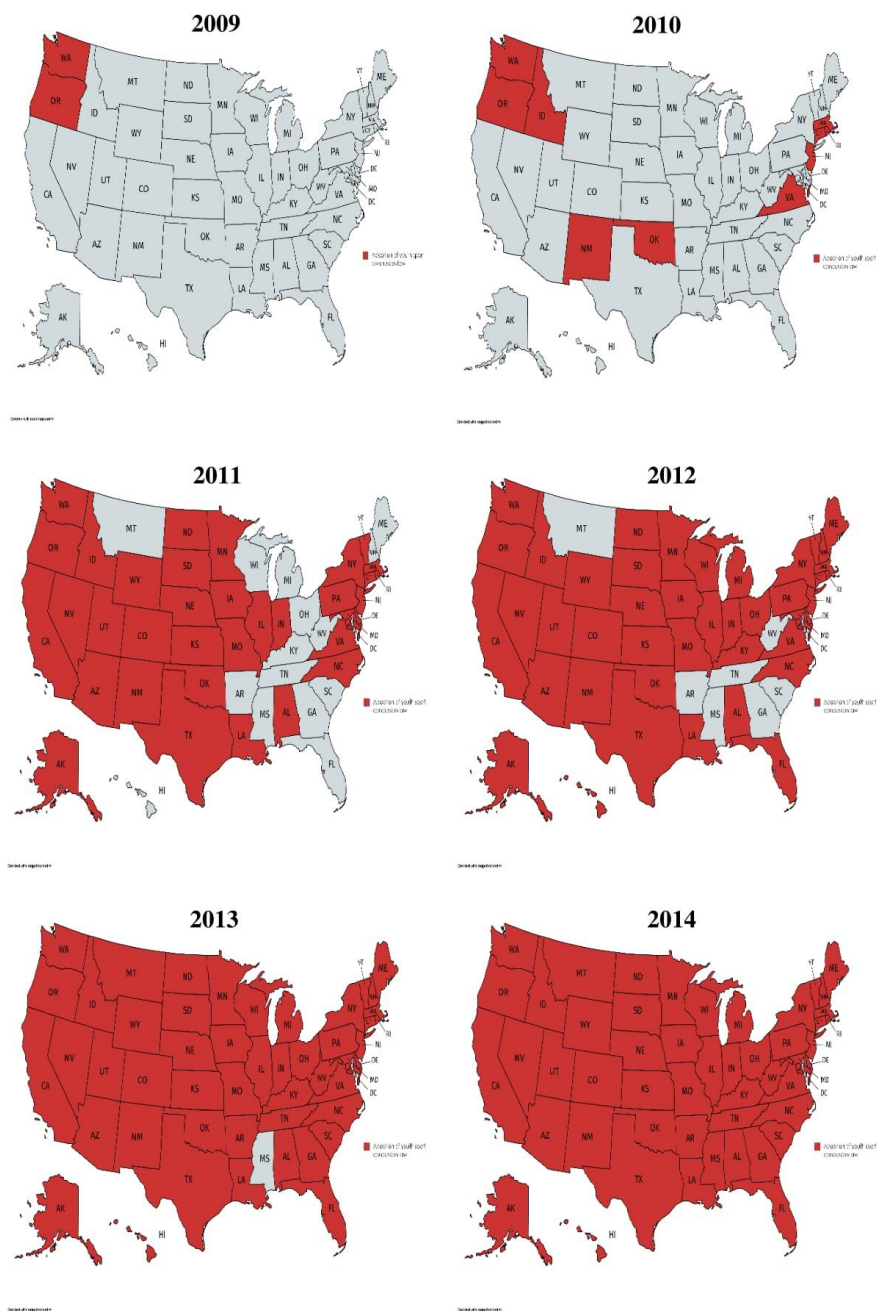


Figure 5. Passage of Concussion Legislation Across States (Map)



## **Field Conditions for Legislation Change**

In addition to the broader institutional changes around concussion documented above (see Figure 2), specific field conditions may have prompted regulatory change around youth sport concussions: increasing normative pressure, educational initiatives, and serious youth concussion injury events.

### ***Increasing normative pressure***

Within the history of concussion research and action, Stage 4 witnessed growing normative pressure around youth concussions. This pressure manifested amidst evolving scientific research and new knowledge on the risks and effects of SRC in youth athletes coupled with growing media attention.

Since the 2000s, more systematic research has been dedicated to understanding the risks of concussions among youth players (Buzzini & Guskiewicz, 2006; Moser & Schatz, 2002). The number of articles on concussion in youth sport published in scholarly journals rose from 106 in the 1990s to 2279 in the 2000s and 2010s. New knowledge about the risks and effects of concussions in youth athletes also emerged. First, growing research has indicated that younger athletes may sustain more damage from concussions because their brains and bodies are less developed than adults' and are less capable of fully repairing themselves. According to Broglio and colleagues (2009), differences in physical maturity (e.g., height, weight), neck strength, and endurance may place high school players at greater risk of head injury. Collegiate players, who tend to be heavier and taller than high school athletes, may be in better physical condition to control head motion after impact (Broglio et al., 2009). As noted by Dr. Cantu in his book *Concussions and Our Kids* (2013), “Children are not adults. Their bodies are still maturing. Their vulnerabilities to head trauma are far greater than adults” (Nocera, 2012, p.A23).

Second, studies have revealed that youth athletes may take longer to recover than adults after suffering a concussion (Covassin, Elbin, Harris, Parker, & Kontos, 2012; McCrory et al., 2013). Researchers have indicated that relative to adults, children could suffer from “a diffuse and more prolonged cerebral swelling” (p.552) after concussions (Field et al., 2003). Such swelling could delay the recovery process and hence place youth athletes at greater risk of serious or even permanent impairment (Field et al., 2003). For instance, Covassin and colleagues (2012) found that after sustaining a concussion, high school athletes showed a greater decline in verbal and visual memory compared with college athletes. Cognitive impairments in high school athletes also lasted an average of 10 to 21 days, two to three times longer than in college athletes (Covassin et al., 2012). According to Dr. Mark Halstead, associate professor of orthopedic surgery and pediatrics at Washington University Orthopedics, the unique physiological characteristics of the young brain requires children to have complete brain rest after suffering a concussion (Reynolds, 2010).

Meanwhile, media attention around youth sports concussions grew, with more extensive media coverage devoted to concussion in youth sports. The media has highlighted new findings about the effects of concussions through regular articles in major news outlets such as *NYT*. For instance, compared with 33 articles published in *NYT* on concussion in youth sports in the 1990s, 120 relevant articles went to press in the 2000s. Given sobering reports on sports concussions and increasing media attention, public awareness of the dangers of SRC in youth has continued to grow. Even so, concrete changes to laws or policies have lagged behind science. Such normative pressure may prompt state legislators and SGBs to take new steps to respond to the findings on concussion in youth sports.

### ***Educational initiatives***

This period has also unveiled limitations in concussion educational practices. Since the 2000s, organizations such as public health advocates, sport organizations, academic institutions, and government entities have developed various educational initiatives around concussion in youth sports. The CDC, together with 26 partners (including the NFL), launched the *Heads Up: Concussion in Youth Sports* education campaign in 2003 to help parents, coaches, school professionals, and healthcare providers improve recognition, prevention, and response to concussions (Sarmiento, Hoffman, Dmitrovsky, & Lee, 2014). The rise in the number of tragic brain injuries of young athletes also prompted more educational efforts in local states. For instance, in 2007, the Brain Injury Association of Washington (BIA-WA) partnered with the CDC, Seattle Seahawks, researchers and clinicians at the University of Washington, and local media to launch an educational campaign to raise awareness and knowledge around concussion prevention and management in youth sports in Washington (Adler & Herring, 2011).

However, concussion advocates have suggested that education around concussions may be insufficient (Adler & Herring, 2011; Laker, Herring, & Adler, 2014), pointing out a lack of consistency around organizational practices related to concussions (Adler, 2011; Ellenbogen, 2014). For instance, a youth sports team may have a coach who is well-informed of the effects of concussions and who implements a recommended protocol for removing athletes from play. However, if this coach leaves the team, then the “institutional memory” (p.469) of that team is also wiped clean; a new coach may have a very different perspective on concussions (Adler & Herring, 2011). Such problems have inspired a call for a more uniform approach to concussion prevention and management.

### ***Key events***

Several serious youth concussion injury events occurred during this period as well. According to the *NYT*, between 1997 and 2007, at least 50 players in high school or younger were killed or suffered severe brain injuries on the football field (Schwarz, 2007). In the 2000s, several youth players suffered from SIS. Catastrophic youth sport concussion injury events occurred in Washington and Oregon during this time. In 2002, Max Conradt, quarterback of a local high school football team, sustained a brutal helmet-to-helmet hit. Despite dizziness and headache, Max was allowed to continue to play in a game the following Friday. Over the course of 2 weeks, Max suffered multiple concussions and SIS, resulting in lifelong injury. In 2006 in Washington, 13-year-old Zackery Lystedt, a former middle school football player, suffered SIS during a football game and was permanently disabled. Such tragedies called into question existing practices for handling concussions and prompted activism around changes in concussion legislation.

### **Organizations and Individuals Involved in the Legislation Change**

To meet the pressing need for a more consistent approach to protect youth athletes, legislation emerged around concussion management in youth sport (Albano, Senter, Adler, Herring, & Asif, 2016). In 2009, Washington and Oregon became pioneers of concussion regulatory change and passed the first two such pieces of legislation in the country, the Zackery Lystedt Law and the Max Conradt Law, which served as key reference points for subsequent states in the adoption of concussion legislation. In Washington and Oregon, passage of concussion legislation was led by a local coalition of regional, community-based organizations and individuals, including sport organizations, brain injury advocacy groups, brain injury attorneys, and scientific experts on sports concussions. This coalition of actors can be considered

institutional entrepreneurs (Battilana et al., 2009; Wijen & Ansari, 2007) who mobilize resources and skills to lead and promote concussion regulatory change. In the fourth chapter of this dissertation, I take Washington and Oregon as my focal cases to delve into the process on how institutional entrepreneurs create and promote the passage of new sport policies.

Since Washington and Oregon, all 50 states and the District of Columbia have passed similar legislation to address youth SRC (Lowrey, 2015). Regarding state adoption, local community-level institutional factors (e.g., state norms, local advocacy) may play a role in determining which state legislature enacts policies sooner (Soule & King, 2006). In the third chapter of this dissertation, I investigate the effects of local institutional factors associated with states' rate of adoption of concussion legislation. In this section, I provide background on key coalition members and leaders behind the passage of concussion legislation in my sampled cases (Washington and Oregon) along with state legislatures, the legislative branch in each state that oversaw passage of concussion legislation.

### ***Coalition members***

Although state-level coalition membership in Washington and Oregon varied in size, their compositions displayed similar pattern. The state-level coalitions were composed of a diverse group of organizations and individuals, including the following: 1) victim and victims' families; 2) expert attorneys on brain injury; 3) scientific experts on SRC; 4) sport organizations (e.g., youth SGBs, professional sport teams, athletic trainer associations); 5) brain injury advocacy organizations; 6) government entities (e.g., state representatives, government affairs consultants); 7) academic institutions; and/or 8) healthcare organizations and 9) insurance groups. Table 2 lists coalition members in sampled states.

Table 2. Coalition Members in Sampled States

Types	Sub-types	Washington	Oregon
Victims' family	N/A	Zackery and his family	Max and his family
Attorneys	Expert attorney on brain injury	Mr. Brown (pseudonym)	Mr. Williams (pseudonym)
Scientists	Scientific expert on SRC	e.g., Dr. Ross (pseudonym)	e.g., Dr. Wilson (pseudonym)
Advocacy organizations	Brain injury advocacy organizations	One brain injury advocacy organization in Washington	One brain injury advocacy organization in Oregon
Sport organizations	SGB	e.g., Washington Interscholastic Athletic Association (WIAA), Washington State Youth Soccer Association (WSYSA)	e.g., Oregon Sports Organization A (OSOA) (pseudonym)
	Professional sport organizations	Seattle Seahawks	N/A
	Athletic trainer associations	Washington State Athletic Trainers' Association (WSATA)	N/A
Academic institutions	Universities	Public university in Washington	Public university in Oregon
Government entities	N/A	State representatives, senators, government affairs consultants	State representatives, senators
Healthcare orgs	Hospitals	e.g., Seattle Children's Hospital, Harborview Medical Center	N/A
Insurance orgs	N/A	Canfield & Associates	N/A

### ***Coalition leaders***

In Washington, Mr. Brown (pseudonym) and Dr. Ross (pseudonym) assumed leadership roles in the passage of Zackery Lystedt Law. Mr. Brown is a recognized expert attorney on brain injury and is a representative of a brain injury advocacy organization in Washington. Dr. Ross is a well-respected scientific expert in sports concussion clinical care at a public university in Washington. Dr. Ross also serves as the co-founder and medical director for multiple concussion institutes and programs in Washington. After learning the tragic story of Zackery and his family, they became actively involved in the passage of concussion legislation in Washington.

In Oregon, Mr. Williams (pseudonym) and Dr. Wilson (pseudonym) assumed leadership roles in the passage of the Max Conradt Law. Mr. Williams is an expert attorney on personal injury and a representative of a brain injury advocacy organization in Oregon. Dr. Wilson is a leading expert on sports concussion management at a public university in Oregon. Dr. Wilson is also the medical director for several concussion programs in Oregon. To ensure that what happened to Max would not happen to any other kid, Mr. Williams and Dr. Wilson spearheaded the effort to create and promote the passage of concussion legislation in Oregon.

### ***State legislature***

In the U.S., states are important geographic boundaries for policy change: each state has a legislature responsible for passing state-level laws. A state legislature refers to the legislative body of the 50 states in the U.S. (Jewell, 1969). The primary responsibility of a state legislature is to design, draft, and vote on bills and laws. The formal name of state legislature may vary from state to state. In some states, the legislature is called the State Legislature; it is termed the General Assembly in others. State legislators are usually made up of citizen-elected politicians and are responsible for making decisions on diverse issues ranging from public health, education,

transportation, and environment. Laws, such as concussion legislation, created in one state may spread to other states; hence, a policy passed by one state legislature may affect decision making across others (Berry & Berry, 1990). Some intra-state factors may also influence the speed of new policy adoption, such as important triggering events (Hoffman, 1999), aspects of state norms or culture (Walker, 1969), and local advocacy (Schneiberg & Soule, 2005). In the next chapter, I focus on examining the effects of local institutional factors, within and between states, on the rate of concussion legislation adoption.



## **CHAPTER III**

### **Sport Policy Institutionalization: Examining the Adoption of Concussion Legislation Across States**

Institutional factors can play a key role in the adoption of new approaches among sport organizations (Slack & Hinings, 1992; 1994; Washington & Ventresca, 2004). Studies of institutional change in sport examine the professionalization and formalization in amateur sport organizations (Amis, Slack, & Hinings, 2002; Stevens & Slack, 1998), the trend of socially-responsible activities in professional sport organizations (Babiak & Trendafilova, 2011; Trendafilova et al., 2013), and the rise of diversity-related practices in university athletic departments (Cunningham, 2008). This scholarship often focuses on isomorphism in the adoption of new practices or structures (Washington & Patterson, 2011, p.7), or how institutional pressures lead to conformity and homogeneity among sport organizations (Kikulis, 2000; Slack & Hining, 1994). For example, Slack and Hinings (1994) discovered coercive pressure from a federal mandate compelled National Sport Organizations (NSO) in Canada to adopt a more bureaucratic structure; and Trendafilova and colleagues (2013) found evidence of mimetic forces, or imitation of peers, in the trend of environmental sustainability.

Less is known about the adoption of new sport policies across geographic boundaries, including local community-level institutional factors (Marquis et al., 2007; Marquis & Lounsbury, 2007; Marquis et al., 2011) associated with heterogeneity in adoption speed. Institutional change includes not only practice or structural change at the organizational level,

but also policy change at the state, regional, or national level (Béland, 2007; Schneiberg & Soule, 2005; Sine & David, 2003). This form of institutional change likely involves antecedents beyond broader coercive or mimetic forces. In particular, compared with the implementation of new organizational practices, sport policy adoption is apt to involve more political factors, such as advocacy efforts in the local region (Mintrom & Vergari, 1996). Further, sport policy adoption and speed of enactment may be shaped by both factors within and across geographic boundaries (Vogus & Davis, 2005). In the U.S., states are important geographic boundaries for policy change: each state has a legislature that is responsible for passing state-level laws. Intra-state factors that may affect the speed of sport policy adoption include important triggering events (Hoffman, 1999) and aspects of state norms or culture (Walker, 1969). At the inter-state level, states may be influenced by peer or neighboring states in their geographical region (Berry & Berry, 1990). Although organizational research points to several potential factors prompting institutional change, we do not know which of these affect sport policy diffusion. Thus, I investigate the following question in this study: *What institutional factors influence the adoption of sport policies across geographic boundaries?*

To examine the institutionalization of sport policy, I look at the case of concussion legislation. Concussion in young people attributable to sport is an important public health issue (Buzzini & Guskiewicz, 2006). New knowledge, policies, increased media attention, and government involvement around concussion in youth sports, together, indicate institutional change is occurring in the U.S. One of the most significant aspects of this trend is the enactment of state policies to protect young athletes (Adler & Herring, 2011). In 2009, Washington passed the first concussion legislation in the country. By 2014, all 50 states and the District of Columbia passed similar youth sport concussion laws, designed to improve recognition and prevention of,

and education around concussions in sports. The enactment of concussion legislation is one of the most important and widespread sport policy initiatives (Laker et al., 2014). I used event history analysis (EHA), a quantitative data procedure, to identify the effect of institutional factors, within and between states, on the speed of policy adoption. Further, I drew on supporting qualitative data to provide additional insight around the role of the factors identified in the EHA.

This research advances sport management scholarship in several ways. First, this study contributes to the literature on institutional change in sport, focused on broader field-level institutional pressures on organizational practice and structural change (Berrett & Slack, 1999; Kikulis, 2000; Slack & Hinings, 1994; Trendafilova et al., 2013), by demonstrating the role of particular local, community-level institutional factors in sport policy adoption. Second, I identify the influence of important triggers, cultural, and political factors in institutional change in sport that remain underexplored in previous sport management literature (Amis et al., 2002; Bradish & Cronin, 2009; O'Brien & Slack, 1999). Thirdly, this study goes beyond the isomorphism hypothesis (Cunningham & Ashley, 2001; O'Brien & Slack, 2004; Skille, 2011) to shed light on heterogeneity within the broader process of institutional change in sport by exploring variation in the speed of sport policy adoption. In doing so, this work offers an approach for examining variation in future research on sport policy or practice adoption. Further, my multi-level focus, on intra- and inter-state factors in the adoption of sport policies, addresses the appeal to “deeply examine a sport field landscape” (Washington & Patterson, 2011, p.10). Finally, this research contributes to an important broader conversation and understanding around organizational and policy dimensions of youth concussion and sport safety, and the findings reveal practical insights relevant to other sport policy adoption contexts.

## **Theory and Hypotheses**

Organizations, including state legislatures, seeking to establish or maintain legitimacy, adopt new practices and policies in response to different institutional factors. Historically, institutional research, including within sport management, focused on homogeneity and the role of broader field-level coercive forces (i.e. from dependence on other organizations), mimetic forces (i.e. from imitating other organizations), and normative forces (i.e. from professions and socialization) in promoting organizational isomorphism (Kikulis, 2000; Slack & Hinings, 1994; Stevens & Slack, 1998). Over time, institutional research has expanded to consider institutional change and heterogeneity in organizational responses (Dacin, Goodstein, & Scott, 2002; Washington & Patterson, 2011). This work indicates that as new practices and policies emerge, organizations adopt in different ways and at varying speeds (Pache & Santos, 2010; Schneiberg & Soule, 2005).

In examining state variation in sport policy adoption, several local institutional factors emerge as relevant. First, studies suggest that organizational responses are shaped by the local institutional context (Husted, Jamali, & Saffar, 2016; Marquis & Lounsbury, 2007; Pe'Er & Gottschalg, 2011), including cultural pressure stemming from local norms and values (Davis & Greve, 1997; Lee & Hennings, 2002), and social influence between organizations in the same regional network (Marquis & Battilana, 2009; Marquis et al., 2007). For instance, Pe'Er and Gottschalg (2011) found that the social and economic norms in red states<sup>2</sup> supported buyout activity, while local norms in blue states impeded it. Additionally, in unpacking institutional change, scholars have identified the role of institutional triggers, such as disruptive events

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<sup>2</sup> Since the presidential election of 2000, red states and blue states are used to refer to states of the United States whose voters primarily choose either the Republican Party (red) or Democratic Party (blue) presidential candidates.

(Zietsma & Lawrence, 2010), and political factors, such as advocacy (Perkmann & Spicer, 2008) that can be state-based (Schneiberg & Soule, 2005). Overall, the literature suggests that differences in cultural, political, and social pressures across states may lead to variation in sport policy adoption, within broader institutional change. Correspondingly, I develop hypotheses below around the influence disruptive events, state norms, local advocacy, and inter-state networks on the speed of concussion legislation adoption (See Figure 6).

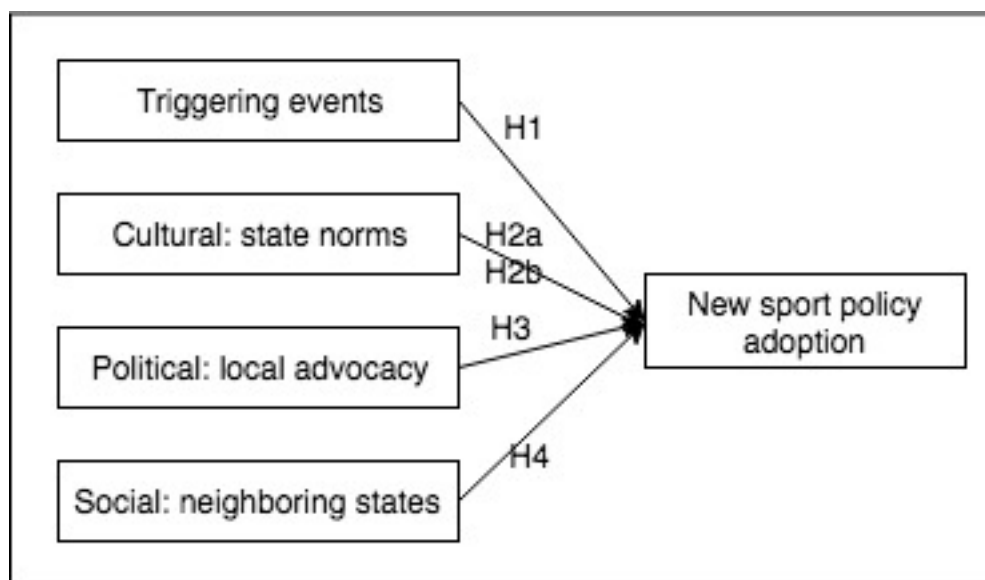


Figure 6. Local Institutional Factors on the Passage of Concussion Legislation

### **Institutional Triggers: Disruptive Events**

Institutional scholarship identifies the role of disruptive or significant events in triggering institutional change and leading to the adoption of new practices and policies in a given field (Greenwood et al., 2002; Hoffman, 1999; Munir, 2005). Disruptive events, also referred to environmental jolts or exogenous shocks (Meyer, 1982), are defined as the initiating events that can “sharply end what has become locked in by institutional inertia” (Hoffman, 1999, p.353).

Following Hannigan (1995) and Greenwood et al. (2002), disruptive events may take multiple forms, such as disasters or crises, threats, regulatory changes, and technological disruptions.

Previous institutional studies show that such events can disrupt existing practices, spur greater attention to problems, and thereby present opportunities for the development of new practices and policies (Hoffman, 1999; Meyer, 1982). For example, Hoffman (1999) found that the book *Silent Spring* (Carson, 1962), which exposed the hazards of using pesticides, received considerable media and public attention, enhanced awareness of human impact on the environment, and hence, brought about significant institutional change in environmental practices and policies for the chemical industry.

Less is known about the role of disruptive events in prompting sport policy change. However, several studies have relevance. Mason and colleagues (2006) suggested that allegations of corruptive behavior of the Salt Lake City's bid team led to attempts at wholesale reform within and outside the International Olympic Committee. In a more recent study, Heinze and Lu (2017) discovered that a series of traumatic brain injury-related death events of high-profile professional football players compelled the NFL to change its response to the issue of player concussions. Although these studies do not conceptualize or measure the effect of disruptive events across organizations, the findings indicate that medical disasters and corruption crises can help spur institutional change in sport.

Given the role of disruptive events in increasing media and public attention around issues, bringing interested actors to the field, and prompting the search for solutions (Hoffman, 1999; Zietsman & Lawrence, 2010), I argue that significant events can lead to sport policy adoption. In the context of concussion legislation, I suggest that disruptive events in the form of serious concussion incidents in youth sport (e.g., the catastrophic injuries of Zackery Lystedt in

Washington) provided the impetus for some local state legislatures to adopt youth sport concussion law sooner. Therefore, I propose:

*H1: States with high-profile youth sport concussion incidents will adopt youth sport concussion legislation sooner.*

### **Cultural Pressure: State Norms**

Institutional scholars have long recognized that organizations are embedded in cultural environments that can shape or constrain their behavior (DiMaggio & Powell, 1991; Scott, 2001). Cultural pressure stems from norms, conventions, values, beliefs, or scripts that guide decision-making in a field (Scott, 2001). These cultural elements can form a basis of legitimacy and rationality in new practice adoption (Lounsbury, 2007; Scott, 2001). More specifically, studies suggest that the adoption process can be enhanced if new practices align with existing culture, and thwarted if they violate existing cultural norms (Davis & Greve, 1997; Kezar & Eckel, 2002; Suddaby, Elsbach, Greenwood, Meyer, & Zilber, 2010).

Culture, however, emerges at different levels or within different social systems, such as industries and communities (Dacin et al., 2002). At the broader field level, institutional logics - concatenations and patterns of cultural elements, such as norms and values (Thornton & Ocasio, 1999, 2008) - can shift and prompt organizational change (Battilana & Dorado, 2010; Heinze & Weber, 2015; Rao & Giorgi, 2006). Yet, norms in the more immediate institutional environment, such as the city or state, may lead to variation in *how* organizations respond, within broader institutional change (Marquis & Battilana, 2009). For example, Lounsbury (2007) found that different financial cultures in Boston and New York provided distinct forms of justification that shaped the adoption of active money management practice in the mutual fund industry.

Within the sport management literature, several studies acknowledge or theorize on the influence of culture in the production of sporting events (Silk et al., 2000) and in shaping differences in environmental sustainability practices across sport venues (Heinze & Soderstrom, 2017). However, there is a dearth of empirical work examining the effect of culture on sport policy adoption. Based on insights from the broader management and organizations discipline, I argue that variation in sport policy adoption can be explained, in part, by local culture; in my case, state values and norms.

One relevant aspect of state culture for the adoption of sport policies in the U.S. is state policy innovativeness. Innovativeness is defined as openness to “the generation, acceptance, and implementation of new ideas, processes, products or services” (Thompson, 1965, p.36). Walker (1969) developed an index of state policy innovativeness by analyzing a variety of policies passed by states prior to 1965. This model demonstrates the cultural patterns of innovation across states. Following scholars generated an updated policy innovativeness index (e.g., Boehmke & Skinner, 2012). Using this index, I suggest that states with a history and culture of policy innovation are likely to pass concussion legislation faster than states without an innovative history of policymaking.

In addition to overall policy innovativeness, state values around the issue, in particular, may influence the adoption of new policies. Cultural values are reflected in patterns of behavior (Hofstede, 1998). In the case of concussions, states that have more laws intended to keep youth safe demonstrate values around youth safety. Past behavior and values, in turn, predict future behavior (Aarts, Verplanken, & Knippenberg, 1998). Thus, I expect that states with stronger youth safety cultures will adopt concussion legislation faster. The hypotheses around the role of state norms are specified below:



*H2a: The greater the policy innovativeness within a state, the sooner a state will adopt youth sport concussion legislation.*

*H2b: The greater the number of youth safety policies adopted within a state, the sooner a state will adopt youth sport concussion legislation.*

### **Political Pressure: Local Advocacy**

Another aspect of the local institutional environment that can shape organizational change is advocacy (Lawrence & Suddaby, 2006; Perkmann & Spicer, 2008; Sine & Lee, 2009). Advocacy refers to “the mobilization of political support through social persuasion” (Lawrence & Suddaby, 2006, p.221) and includes seeking resources, arguing for new causes, and lobbying for or against new legislation. Actors who engage in advocacy to create new institutions or transform existing ones are often called institutional entrepreneurs (Maguire et al., 2004). In order to gather social and political support, activists and entrepreneurs may recruit groups of actors and organizations into coalitions and networks to pursue a collective goal (Battilana et al., 2009; Garud et al., 2002; Perkmann & Spicer, 2008). In some cases, this collective action involves attempts to influence governing bodies, such as state legislatures (Mintrom & Vergari, 1996; Schneiberg & Soule, 2005). These advocacy efforts can also affect the “speed at which the political system addresses problems” (Reid, 2006, p.345). The success of the advocacy often depends on the availability and amount of resources (McNutt & Boland, 1999).

A growing number of institutional studies demonstrate how advocacy and activism generate support for new practices (Lounsbury, 2005; Perkmann & Spicer, 2008; Sine & Lee, 2009). For instance, using an institutional approach, Sine and Lee (2009) showed how environmental activists and movement organizations advocated for the development of wind power sectors and other renewable energy sources in the U.S, leading to a significant change in

the norms around electricity generation. Several qualitative studies within sport management also acknowledge the role of advocacy in the adoption of new practices or policies. For example, Sage (1999) found that coalition advocacy groups that protested against the labor practices of Nike's sport shoe factories, successfully influenced governmental policies with respect to minimum wages, working condition standards, and limitations on hours of work. In another study, Comeau and Church (2010) showed how women's sport advocacy organizations in Canada and the U.S. used different strategies, such as lobbying for resources and attending legislative consultation processes, to promote gender equity practices for women. Notably, these studies do not examine variation in advocacy and the effect on sport policy adoption.

According to personal accounts of those involved in the passage of concussion legislation, local advocates were an important part of the policy-making process (Adler & Herring, 2011). Regional and community-based concussion advocacy organizations - sustained through public contributions - provided information concerning public opinion, and applied pressure, strategically, for policy change (Adler & Herring, 2011; Ellenbogen, 2014). Based on the prior research on advocacy, I propose:

*H3: The greater the concussion advocacy resources, the sooner a state will adopt youth sport concussion legislation.*

### **Social Pressure: Inter-State Networks**

In addition to intra-state characteristics, the spread of a new policy or practice may be shaped by the social context. Social pressure can operate through contacts and networks among organizations, including state legislatures (Lee & Pennings, 2002; Vogus & Davis, 2005). Institutional scholars often use network perspectives to examine the influence of social structures on practice or policy adoption (Lee & Pennings, 2002; Marquis & Battilana, 2009; Marquis et

al., 2007). In this tradition, networks are viewed as vehicles by which new knowledge, forms, and information are diffused and transmitted across organizations, resulting in convergence around common practices (Marquis et al., 2007).

Institutional studies show that the adoption of new practices can be facilitated by different types of networks, including geographic proximity (Marquis & Battilana, 2009; Marquis et al., 2007). Organizations often categorize their peers in terms of geographical distance (Burt, 1987; Davis & Greve, 1997). In the wake of practice or policy changes, organizational decision makers can be more susceptible to social influence from peers who are geographically closer (Lee & Pennings, 2002). For instance, Davis and Greve (1997) found that golden parachutes (a governance practice against hostile takeover) were spread among organizations within a closer geographical area. In another study, Lee and Pennings (2002) found that the diffusion of a new partner-associate structure among Dutch accounting firms was conditional upon a propinquity network. Despite their popularity in organization research, network theories and approaches are under-utilized in sport management (Quatman & Chelladurai, 2008). A few qualitative studies acknowledge the role of networks in sport practice adoption, such as the diffusion of environmental practices among professional sport teams (Babiak & Trendafilova, 2011). However, more work is needed to systematically test the influence of social networks on sport practice and policy adoption.

Aligned with the broader research on networks and geographic proximity, I expect that states will be more cognizant of the actions of neighboring states as it pertains to new sport policies. State officials are more likely to communicate with states in the regional network that share the same border (Berry & Berry, 1990). Neighboring states, as regional peers, thus, may be

imitated and used as a reference to determine what is legitimate and appropriate. Therefore, I propose:

*H4: The greater the proportion of neighboring states' adoption, the sooner a state will adopt youth sport concussion legislation.*

## **Methods**

In this study, I conducted an event history analysis (EHA) to investigate the effects of cultural (state norms), social (inter-state networks), and political factors (local advocacy), as well as triggering events, on state adoption of concussion legislation. EHA enables researchers to model fixed and time-varying factors that may increase or decrease the amount of time until the occurrence of an event (Mills, 2011); and this approach has been used extensively to examine the adoption of practices and policies by organizations and states (Box-Steffensmeier & Jones, 2004). Thus, through EHA, I was able to model the causes, the timing, and the sequence of state policy adoption (Vogus & Davis, 2005). Further, I drew on background interview data to offer insight around how some of the factors identified in the quantitative findings influenced the passage of concussion legislation.

### **Data Collection**

#### ***Sample***

With an EHA design, I followed three decision rules. First, the time period for this study was 2009 to 2014, starting with the year the first state (Washington) adopted the concussion legislation and ending with the year the last state (Mississippi) adopted. Second, as is common in previous research (e.g., Boehmke & Skinner, 2012; Rosenson, 2006), I focused on the 48 contiguous U.S. states, and excluded Alaska and Hawaii from the analyses because of their

isolated geographical location and some missing observations. Under this rule, the sample size was 154 observations (state-years). More specifically, each of the 48 contiguous states provided an observation for each year in which the state had a non-zero probability of adopting the new concussion legislation, between the period of 2009 to 2014. Once a state adopted the concussion legislation, its probability of adoption dropped to zero. For instance, if a state passed the legislation in 2012, the state contributed four observations and was coded as 0 in 2009, 0 in 2010, 0 in 2011, and 1 in 2012. Because all 50 states adopted some form of concussion law by 2014, there was no right censoring issue<sup>3</sup> in this data set. Right censoring here refers to the situation whereby a state did not adopt a concussion law before the study observation time ended. Third, aligned with previous research (Berry & Berry, 1990; Soule & Zylan, 1997), I lagged the characteristics of time-varying covariates (e.g., local advocacy, inter-state networks) by 1 year, assuming that the previous year's characteristics affected current-year decisions.

### ***Dependent variables***

The cases in this data set were composed of state-years. The dependent variable in this analysis refers to the probability that a state adopted the concussion legislation during calendar years. Following prior studies (Berry & Berry, 1990; Vogus & Davis, 2005), I measured the dependent variable by a dichotomous indicator: for each state in a given year, I coded the dependent variable as a 0 if the state did not pass the legislation in that year; and a 1 if it did. Once the state adopted the legislation in a given year, I excluded that state from the risk set. I obtained data on the timing of youth sport concussion legislation adoption from the National Conference of State Legislatures (NCSL) database (<http://www.ncsl.org/>). To corroborate my findings, following Vogus and Davis (2005), I performed another series of EHA by using exact

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<sup>3</sup> Right censoring occurs when we partially observe a duration: a subject leaves the study or the study ends before an event has occurred. (Hays, 2013)

dates for the adoption of concussion legislation in each state (Table 7-9). Further, I consulted several other sources (e.g., state legislative records, media accounts of legislation adoption, MomsTeam.com) to confirm the timing of the initial passage of concussion law.

### ***Independent variables***

**Disruptive events.** To test the influence of disruptive events in policy adoption, I utilized a dummy measure of the presence or the absence of high-profile youth sport concussion incidents that occurred between 2001 and 2013 in each state. I chose to code the disruptive events that happened prior to 2009 because the first concussion legislation was adopted in 2009. I started the search period a few years ahead because the first two states to adopt (Washington and Oregon) had disruptive events in 2006 and 2001. Previous research also identified this time frame (2001-2013) as a key stage of incremental institutional change around concussion (Heinze & Lu, 2017). I focused on the incidents that received prominent coverage in leading national news outlets. I monitored two leading national news sources (e.g., *The New York Times* and *Sports Illustrated*) for items dealing with salient concussion incidents in youth sport. The *NYT* and the *SI* were selected because of their prominence and systematic coverage of the evolution of the concussion issue over time. Examples of disruptive events include the notable injuries of Zackery Lystedt in Washington, Max Conradt in Oregon, and Kort Breckenridge in Idaho. This variable was also lagged one year, assuming that the previous year's characteristic affected the current year's decisions.

**State norms.** I used two variables as indicators of state norms: a state's policy innovativeness and a state's culture for youth safety. Both variables are fixed values for each state across years. To measure policy innovativeness, I utilized Boehmke and Skinner's (2012) updated innovation score, based on Walker's (1969) original state policy innovation index. After

analyzing 180 policies passed by states between 1913 and 2008, Boehmke and Skinner (2012) came up with a standardized innovation score ranging from .61 (indicating the highest level of innovation) and -.38 (indicating the lowest level of innovation) for each state. I accessed the data were from the Harvard dataverse (<https://dataverse.harvard.edu/>).

A state's culture for youth safety variable was based on a state's previous adoption of important youth safety legislation. I operationalized this variable using the number of key youth safety policies passed before 2009. Youth safety policy data was provided by the Safe Kids Worldwide, a global organization dedicated to protecting kids from unintentional injuries. Safe Kids developed a matrix listing key legislation that impacts youth safety. Examples of legislation include the seatbelt law (under 16), the bike helmet law (under 16), the life jacket law, and the motorcycle helmet law.

**Local advocacy.** I measured local advocacy using the public support data for state chapters of Brain Injury Association (BIA). The BIA was identified in previous reflection papers (Adler & Herring, 2011; Ellenbogen, 2014) and my first-hand interviews as the leading concussion advocacy organization in promoting the passage of concussion legislation in each state. Public support includes 'gifts, grants, contributions, and membership fees' to the BIA in each state. I gathered the data from the IRS Form 990 (Return of Organization Exempt from Income Tax), filed by each state-level BIA, using Guidestar (<http://www.guidestar.org/Home.aspx>). All dollar values were transformed in millions. This variable was updated annually for each state-year.

**Inter-state networks.** To examine inter-state networks, I looked at the influence of neighboring states' adoption. Neighboring states refer to two states that "share a land-based border" (Doyle, 2006, p.269). This variable was updated annually for each state-year. I

calculated neighboring states' adoption by using a percentage of previously-adopting neighboring states for each state-year.

### ***Controls***

I included several controls that capture state economic and political, and football, soccer and hockey popularity within each state. First, to control for the effect of state economic conditions, I created a variable for fiscal health. Prior studies suggest that states with a strong fiscal health tend to have more room in their budgets to support new legislation (Volden, 2006). Following previous research (Berry & Berry, 1990; Soule & Zylan, 1997), I measured fiscal health by subtracting total state expenditures from total state revenues and dividing by total state revenues. State expenditure and revenue data were collected from the Statistical Abstracts of the U.S. published by the U.S. Census Bureau (<https://www.census.gov/>).

Previous research shows that the composition of state government may influence policy adoption (McLendon, Heller, & Young, 2005). More specifically, when a single political party controls the governorship and both houses of the legislature, the probability that the state will adopt a new policy is greater than when the government is under divided party control (Berry & Berry, 1990). Thus, I utilized a dummy variable for unified government (1=the two legislative houses and the governor are controlled by the same party; 0=otherwise) to account for the political condition of state legislatures (Berry & Berry, 1990). I gathered the data from the NCSL database.

Further, prior research shows that football, soccer, and hockey are the sports that tend to have higher concussion rates (Comstock, Currie, Pierpoint, Grubenhoff, & Fields, 2015; Marar, McIlvain, Fields, & Comstock, 2012). Therefore, I included two additional variables to capture football, soccer, and hockey popularity in each state. In particular, I controlled for the presence



of an NFL team in the state (dummy measure), and the high school football, soccer and hockey participation rate. Data on high school football, soccer, and hockey participation rate were gathered from the National Federation of State High School Associations (NFHS) official website (<https://www.nfhs.org/>). I applied a per capita transformation to standardize differences in population size, thus ensuring comparability across states.

I updated state economic and political conditions, and state high school football, soccer, and hockey participation rates, annually; while NFL teams was a fixed value across years. Table 3 contains the descriptive statistics and correlation matrix for all the variables used in the statistical analyses.

Table 3. Descriptive Statistics and Correlations

Variable	Mean	S.D.	1	2	3	4	5	6	7	8
Legislation adoption	.31	.46								
Disruptive events	.10	.30	.16							
Policy innovativeness	.04	.19	.10	.10						
Culture for youth safety	3.78	1.24	.01	.07	.29*					
Local advocacy	.32	.43	.08	-.02	.22*	.04				
Neighboring state adoption	.13	.24	.43*	-.01	-.14	.03	-.12			
Unified government	.60	.49	.07	.23*	.02	.15	-.15	.06		
Fiscal health	-.09	.19	.25*	-.03	-.23*	-.04	-.11	.37*	.15	
Football, soccer, hockey rate	.00	.00	-.02	.20*	-.20*	-.16*	-.23*	.06	-.01	.08

Note: \*p<.05

## Data Analysis

I used an event history framework to examine the effects of independent variables that may influence the amount of time before concussion legislation is adopted in a given state. In terms of model selection, I used the Cox proportional hazard model, a commonly used event history model in policy adoption studies (Berry & Berry, 1999; Box-Steffensmeier & Jones, 2004). The Cox model examines the hazard rate for event occurrence, which denotes the rate of change at a particular time interval (Doyle, 2006; Milles, 2011). The hazard rate refers to the

probability, or risk, of adopting concussion legislation during the period of analysis. One major strength of the Cox model is that it offers flexibility to fit an event history model without having to assume a specific distribution (Box-Steffensmeier & Jones, 2004). I used the Efron method to handle tied events, i.e. events with the same survival time (Borucka, 2014). Survival time is the time between entry to a risk set and the occurrence of an event (policy adoption). Survival time here refers to the time (years or days) that it took for a state to adopt concussion legislation. For each model, I applied the proportional-hazards test, based on Schoenfeld residuals, to test the proportionality assumption. For an individual state  $i$ , with a vector of characteristics,  $x$ , the proportional hazards model is written as follows:

$$h_i(t) = h_0(t)\exp(\beta'_k x_i)$$

where  $h_i(t)$  is the hazard function of state  $i$ ;  $h_0(t)$  is the unspecified baseline hazard function;  $\beta'_k$  denotes a  $k \times 1$  vector of coefficients of independent variables; and  $x_i$  refers to a  $k \times 1$  vector of independent variables for state  $i$ .

I adopted a methodological technique recommended by previous scholars (e.g. Mintz & Palmer, 2000; Vogus & Davis, 2005) to handle the smaller sample size. In particular, I followed a four-step procedure to maximally test all relevant variables, while reducing “the demands on the small sample size in the final model” (Vogus & Davis, 2005, p.114). As shown in Table 4 and 5, in the first step, I estimated five separate "single-factor" models, including independent variables measuring disruptive events (Model 1), state norms (Model 2), local advocacy (Model 3), inter-state networks (Model 4), and controls (Model 5). In the second step, I entered all statistically significant variables from step one into a first-stage multifactor model (Model 6). In

the third step, all the significant variables from step two, and each variable dropped in step one, were re-entered into a set of second-stage multifactor models (Model 7-12). In the fourth step, the significant variables from steps two and three were entered into a final multifactor model (Model 13). I used the Stata 15 program to perform the data analysis.

### **Supporting Interview Data**

In conjunction with the above data collection and analyses, I conducted interviews with key actors in the passage of concussion legislation to add nuance to my findings. In particular, I collected 11 first-hand interviews with local advocacy actors who participated in the enactment of concussion legislation in the three early-adopter states, Washington, Oregon, and Idaho. I focused on these states to shed light on how the factors I identified in the EHA prompted faster adoption. Interviewees included leaders of state-level concussion associations and youth sport governing bodies, concussion researchers from academic institutions, and lobbyist. The interviews were semi-structured with open-ended questions. I started with questions about interviewees' personal experiences in the legislation campaigns. These were followed by probes to understand the characteristics of local advocacy in more depth. I also included questions that focused on the potential interaction between states (e.g., "Have you reached out to any states for assistance in getting the law passed?"). Most interviews lasted about 40 to 60 minutes, and each was audiotaped following the respondent's permission. The interviews were conducted between January 2017 and June 2017.

I used qualitative, content analysis to unpack the influence of the four key conditions on the adoption of youth sport concussion legislation. I used a two-step process. In the first step, I deductively coded for the presence of the four factors (state norms, disruptive events, local advocacy, and inter-state networks) as factors in the adoption of concussion legislation. In the

second step, I focused on understanding how the factors may have contributed to the passage of the legislation.

## **Results**

The results of the Cox proportional hazard regression, using 48 contiguous states, are presented in Table 4 and Table 5 (Models 1 through 13). In Step 1, as shown in Models 1 through 5, five groups of theoretically-related variables—disruptive events, state norms, local advocacy, inter-state networks, and controls—were entered individually (Mintz & Palmer, 2000; Vogus & Davis, 2005). These models indicate that the effects of three of my explanatory variables—disruptive events, policy innovativeness, and local advocacy (H1, H2a, and H3)—are well supported. Models 1 through 3 were also statistically significant. In Model 5, none of the four control variables were significant. In Step 2, I ran a first-stage multifactor model with the three significant factors received in Step 1: disruptive events, policy innovativeness, and local advocacy. The results in Model 6 show that disruptive events, policy innovativeness, and local advocacy are statistically significant. In Step 3, I ran 6 Cox models (Model 7 through 12) with the three significant variables—disruptive events, policy innovativeness, local advocacy—received from Step 2, and individually re-entered each variable—culture for youth safety, neighboring state adoption, unified government, fiscal health, NFL teams, and football, soccer, and hockey participation rate—dropped after Step 1. Among these models, one control variable—NFL teams—became significant at .05 level (Model 11), and another control—football, soccer, and hockey participation rate—was moderately significant at .10 level (Model 12). These two controls were re-entered in Step 4. Therefore, in the final Model 13, I included 5 variables—disruptive events, policy innovativeness, local advocacy, NFL teams, and football,

soccer, and hockey participation rate. The global tests showed that Model 13 did not violate the proportional hazard assumption ( $\chi^2=3.35$ ,  $p>.05$ ). Table 6 and 7 present the Cox regression results, using days to measure time to adoption. Results in Model 12 in Table 7 (using days to measure time to adoption) align with results in Model 13 in Table 5 (using years to measure time to adoption). In the following section, I report the final output in Model 13 in Table 5. In addition, given Washington and Oregon are two salient cases, I repeated the four steps and performed another series of EHA by excluding Washington and Oregon. The results, displayed in Table 8 and 9, are consistent with final output in Table 5 and 7. Final output in Table 8 and 9 also showed significant effects of disruptive events, policy innovativeness, and public advocacy on concussion legislation adoption. The background qualitative data also added additional insight on the role of disruptive events and local advocacy on policy adoption.

Table 4. Cox Regression of Concussion Legislation Adoption (years) I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Disruptive events	.99** (.37)					.93* (.38)	.90* (.38)
Policy innovativeness		2.70*** (.77)				2.17** (.68)	2.35** (.74)
Culture for youth safety		-.13 (.10)					-.08 (.09)
Local advocacy			.74** (.24)			.60* (.25)	.60* (.25)
Neighboring state adoption				.12 (.79)			
<i>Controls</i>							
Unified government					-.21 (.27)		
Fiscal health					-1.05 (1.09)		
NFL teams					.13 (.28)		
Football, soccer, hockey rate					-27.78 (88.96)		
Likelihood ratio	-138.15	-135.67	-138.62	-139.77	-140.06	-132.55	-132.35
Wald x	7.00**	12.28**	9.73**	2.36	2.69	30.03***	29.54***
N	154	154	154	154	154	154	154

Note: Significance tests are two-tail for controls and one-tail for hypothesized effects.

Robust standard errors are in parentheses.

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 5. Cox Regression of Concussion Legislation Adoption (years) II

	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Disruptive events	.91* (.36)	1.01** (.39)	1.02** (.35)	1.02*** (.32)	.97* (.40)	1.10*** (.34)
Policy innovativeness	2.04** (.70)	2.21** (.70)	2.13** (.68)	3.67*** (.97)	2.03** (.72)	3.52*** (.97)
Culture for youth safety						
Local advocacy	.64* (.25)	.52+ (.29)	.59* (.25)	.69** (.25)	.64** (.24)	.75** (.24)
Neighboring state adoption	.89 (.71)					
<i>Controls</i>						
Unified government		-.28 (.26)				
Fiscal health			-1.35 (1.27)			
NFL teams				-.89** (.34)		-.95** (.36)
Football, soccer, hockey rate					-36.27+ (100.48)	-76.45 (101.34)
Likelihood ratio	-132.05	-132.29	-132.24	-130.12	-132.49	-129.83
Wald x	35.00***	31.19***	29.54***	41.77***	31.46***	45.29***
N	154	154	154	154	154	154

Note: Significance tests are two-tail for controls and one-tail for hypothesized effects. Robust standard errors are in parentheses.

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001



Table 6. Cox Regression of Concussion Legislation Adoption (days) I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Disruptive events	1.14* (.38)					1.02** (.39)
Policy innovativeness		2.17* (.89)				1.92* (.72)
Culture for youth safety		-.19 <sup>+</sup> (.11)				-.15 (.11)
Local advocacy			.63** (.22)			.46 <sup>+</sup> (.26)
Neighboring state adoption				.90 (.76)		
<i>Controls</i>						
Unified government					-.26 (.31)	
Fiscal health					-.90 (1.19)	
NFL teams					.03 (.31)	
Football, soccer, hockey rate					-24.40 (140.46)	
Likelihood ratio	-137.50	-136.95	-139.14	-140.12	-140.19	-133.47
Wald x	8.99*	6.89*	7.80**	1.40	1.48	22.02***
N	154	154	154	154	154	154

Note: Significance tests are two-tail for controls and one-tail for hypothesized effects. Robust standard errors are in parentheses.

<sup>+</sup>p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 7. Cox Regression of Concussion Legislation Adoption (days) II

	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Disruptive events	1.06** (.37)	1.20** (.41)	1.19*** (.37)	1.17*** (.33)	1.12** (.42)	1.17*** (.33)
Policy innovativeness	1.47+ (.80)	1.68* (.82)	1.57* (.78)	2.82** (1.02)	1.44+ (.82)	2.82** (1.02)
Culture for youth safety						
Local advocacy	.49+ (.27)	.33 (.32)	.43+ (.26)	.53* (.26)	.49+ (.26)	.53* (.26)
Neighboring state adoption	.67 (.74)					
<i>Controls</i>						
Unified government		-.43 (.32)				
Fiscal health			-1.54 (1.38)			
NFL teams				-.84* (.35)		-.84* (.35)
Football, soccer, hockey rate					-36.70 (119.81)	
Likelihood ratio	-133.85	-133.41	-133.75	-132.02	-134.10	-132.02
Wald x	22.89***	19.88***	20.78***	31.54***	20.20***	31.54***
N	154	154	154	154	154	154

Note: Significance tests are two-tail for controls and one-tail for hypothesized effects. Robust standard errors are in parentheses.

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 8. Cox Regression Excluding Washington and Oregon (years)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Disruptive events	.72* (.35)					.69* (.35)	.77** (.30)
Policy innovativeness		2.52*** (.77)				1.97** (.68)	3.39*** (.96)
Culture for youth safety		-.15 (.10)					
Local advocacy			.85** (.26)			.76** (.24)	.83*** (.24)
Neighboring state adoption				1.21 (.79)			
<i>Controls</i>							
Unified government					-.32 (.26)		
Fiscal health					-.61 (1.11)		
NFL teams					.17 (.28)		-.82* (.35)
Football, soccer, hockey rate					-22.64 (93.11)		
Likelihood ratio	-131.85	-128.71	-130.43	-132.05	-132.25	-126.46	-124.55
Wald x	4.09*	10.94**	10.45**	2.36	2.60	24.84***	38.20***
N	152	152	152	152	152	152	152

Note: Significance tests are two-tail for controls and one-tail for hypothesized effects.

Robust standard errors are in parentheses.

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 9. Cox Regression Excluding Washington and Oregon (days)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Disruptive events	.87* (.36)					.752* (.35)	.90** (.31)
Policy innovativeness		1.98* (.90)				1.71* (.84)	2.53* (1.02)
Culture for youth safety		-.21 <sup>+</sup> (.12)				-.17 (.11)	
Local advocacy			.72** (.24)			.59* (.26)	.67** (.24)
Neighboring state adoption				.90 (.76)			
<i>Controls</i>							
Unified government					-.37 (.32)		
Fiscal health					-.45 (1.25)		
NFL teams					.05 (.31)		-.77* (.36)
Football, soccer, hockey rate					-19.41 (110.21)		
Likelihood ratio	-131.44	-129.64	-131.04	-132.40	-132.30	-127.28	-126.55
Wald x	5.80*	6.29*	8.72**	1.40	1.61	18.58***	29.25***
N	152	152	152	152	152	152	152

Note: Significance tests are two-tail for controls and one-tail for hypothesized effects.  
Robust standard errors are in parentheses.

<sup>+</sup>p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

## Disruptive Events

Based on the output in Table 5, I found evidence supporting the influence of disruptive events. Hypothesis 1 predicts a positive effect of the presence of high profile youth sport concussion incidents on state concussion legislation adoption. Consistent with H1, the estimated coefficient for disruptive concussion events is positive and statistically significant in Model 13 ( $\beta = 1.10, p < .05$ ). For interpretability, following Zylan and Soule (1997), I computed a hazard ratio by exponentiating the estimated coefficient 1.10. More specifically, for states with prominent concussion incidents,  $\exp(1.10 * 1) = 3.00$ . For states without salient concussion events,  $\exp(1.10 * 0) = 1$ . That is to say, the expected hazard rate of adoption is 3 times higher in states with disruptive concussion incidents as compared to states without such incidents, while holding other variables constant. Thus, the presence of salient concussion events in youth sport likely contributed to faster adoption of legislation.

The interview data further supported the EHA findings about the effect of disruptive events. I found that salient concussion incidents in early adopter states functioned as an important trigger in the policy adoption process, through generating significant attention around the issue of concussion in youth sports and mobilizing advocates. After learning of the high-profile events, a group of concussion advocates (including organizations and individuals) worked to promote the passage of concussion legislation. For instance, in Oregon State, following Max Conradt's tragic injury event, the issue of how to better protect youth athletes from the danger of concussions was raised among a group of advocates. This group later formed a state-level advocacy coalition to promote the passage of concussion legislation. The role of disruptive events is illustrated by the following quote from a legislation advocate in Oregon.

*"This is where the story of Max's law really starts. Ralph Conradt (Max Conradt's dad)*

*approached us and told Max's story. Ralph Conradt came at us and he said something has to be done, we have to do something legislatively. So that's how that all started...We had this incredible emotional story with Max. ... We realized how serious any concussion can be, so that's where activists, doctors and researchers all came in. These are all groups that were part of that coalition."*

## **State Norms**

Hypothesis 2a and 2b predict the impact of state norms on concussion legislation adoption. The results provide strong support for H2a regarding state policy innovativeness on concussion legislation adoption. As shown in Model 13 in Table 5, the estimated coefficient for policy innovativeness is positive and statistically significant ( $\beta = 3.52, p < .05$ ). For states with the highest policy innovation score,  $\exp(3.52 * 0.61) = 8.56$ . For states with the lowest policy innovation score,  $\exp(3.52 * -0.38) = 0.26$ . In other words, states with the highest policy innovativeness adopted a concussion legislation at a hazard rate 32 times higher than states with the lowest, holding other variables constant. Thus, the greater the state's policy innovativeness, the faster the state is to adopt youth sport concussion legislation. However, contrary to the prediction in H2b, a state's culture for youth safety is not significant in Model 7. Taken together, the results suggest that certain state norms are more relevant than others in terms of conditioning willingness and ability to adopt concussion legislation.

## **State Advocacy**

Regarding intra-state characteristics, the results are consistent with my expectations. The coefficient for state advocacy is positive and statistically significant in Model 13 in Table 5 ( $\beta = .75, p < .05$ ). For each one unit increase in public support for the brain injury advocacy organization in local state,  $\exp(0.75 * 1) = 2.12$ . That is to say, the expected hazard is 2.12

times higher in a state relative to a one unit increase in public support, holding other variables constant. As predicted, the greater the advocacy resources for brain injury in the state, the faster the adoption of youth sport concussion legislation.

The interview data offered additional support for the broader role of state advocacy in policy adoption. As noted by a prominent state-level legislation advocate in Oregon, *“The success of the passage of this legislation is really about advocacy.”* More specifically, I identified three key characteristics of state advocacy in early adopter states. One feature was the diversity in advocacy membership. For instance, in Washington, the state-level advocacy group was composed of a variety of organizations and actors, including brain injury advocacy organizations, youth sport governing bodies, professional sports teams, healthcare organizations, and academic institutions. Different stakeholders brought different skills, perspectives, and resources to the table that were leveraged in the passage of concussion legislation. As noted by a key legislation advocate in Washington,

*“I think it was very important that legislators in our state heard the same message from a variety of different advocacy groups. And that interest would be from the athlete, medical, academic, and legal perspectives. Each had unique context that would be interesting in this type of work. This is a perfect example of pulling resources.”*

In addition, I found that local advocacy groups developed shared visions around the notion that concussion law was more than a concussion issue, a football issue, or a sports issue. It was an issue of children’s safety and health. These shared visions helped diverse groups of advocates find common ground in building inter-organizational collaboration. As stated by a key advocate in Washington, *“I think the one thing that we have in common is that we cared about*

*the safety of our youth and the safety of sports. When you look at it from that perspective, there is no territory.”*

Further, the analysis of the interview data suggests that state-level advocacy involved co-optation. Co-optation is a form of manipulation whereby the organization recruits the threatening constituent to “neutralize opposition and enhance legitimacy” (Oliver, 1991, p.157). In building the coalition, state-level advocates tried to identify organizations that were critics of concussion laws, and involve them in the process. This helped minimize potential opposition in the legislation process. As mentioned by a lobbyist,

*“We started early on with the discussion about who may be interested in this [concussion legislation], who we want to make sure that doesn’t oppose us. It was important to identify anybody who may be opposed to this and bring them in. And they could actually become one of the strongest supporters.”*

### **Inter-State Networks**

I did not find significant effects of inter-state networks on adoption. Note that when inter-state factor is included in Model 8, the intra-state effects do not change dramatically. However, the measure of the inter-state networks does not yield the expected results. As shown in Model 4 and Model 8 in Table 5, the coefficient for neighboring states adoption implies a positive relationship (which is consistent with the hypothesis), but the variable is not statistically significant. Thus, H4 is not well supported. Similarly, I did not find evidence, through the analysis of interview data, of the role of neighboring states. Instead, qualitative findings suggest that some states were heavily influenced by the leading or innovator states, such as Washington and Oregon. For instance, one advocate in Idaho said the following when asked about whether other states shaped the process.



*“Absolutely, Washington in particular, I think the thing that we got to remember was that Washington passed the law, really on the leading edge. At that time, there wasn’t a lot of discussion. They were the first to do it. The people were unprepared, the legislators were unprepared. They reacted with emotion. Washington really set up a good example for following states to follow.”*

In Model 13, one control variable, NFL teams, was significant ( $\beta = -.95$ ,  $p < .05$ ), and yet it was in the opposite direction as I predicted. The result shows that a state without an NFL team tends to adopt the legislation at a faster rate. I did not find significant effects of the other controls-unified government, fiscal health, and football, soccer, and hockey participation rate-on concussion policy adoption.

Together, the findings indicate that 1) the presence of significant concussion injury events in the state, 2) greater state policy innovativeness, and 3) more advocacy resources for brain injury in the state, led to faster youth sport concussion legislation adoption.

## **Discussion**

Prior work on institutional change in sport management neglects policy adoption and diffusion across geographic boundaries. Further, this literature often focuses on explaining homogeneity in organizational responses (O’Brien & Slack, 2004; Slack & Hining, 1994; Trendafilova et al., 2013). In examining youth concussion legislation, this study sheds light on the institutionalization of sport policy and variation in the speed of adoption across states. Results of EHA indicate institutional factors relevant for sport policy adoption. Specifically, I identified the influence of the local institutional environment with respect to important triggers, cultural elements, and political activity in sport policy adoption. These findings expand

understanding of institutional factors in sport management, beyond the oft-cited coercive and mimetic forces (Amis et al., 2002; Slack & Hining, 1994; Trendafilova et al., 2013). In this section, I discuss the contributions to the literature on institutional change in sport management. I address limitation, future research directions, and practical implications in Chapter 5.

The findings on intra-state factors connect sport management with a growing body of organizational research on the influence of the local institutional context (Husted et al., 2016; Marquis & Lounsbury, 2007). The first way my results speak to this area is through identifying the role of important local triggering events in sport policy adoption. Concussion legislation was adopted sooner in states where there were salient concussion injuries in youth sport. This result can be understood in light of significant media coverage and public awareness around these concussion incidents that appeared to spark new initiatives around youth concussion safety. These disruptive events may have created social pressure in states and directed activists' attention (Nigam & Ocasio, 2010) to the issue of concussions. In demonstrating the effect of triggering events, this study extends the sport management literature. Several prior case studies suggested the role of events in shaping organizational structure or strategy (Heinze & Lu, 2017; Mason et al., 2006). This study builds on this work by systematically identifying the influence of events on sport policy adoption.

The second intrastate factor supported by my findings is cultural pressure. Although institutional research suggests that we can understand organizational change through a cultural perspective (Rao & Giorgi, 2006; Scott, 2001; Suddaby et al., 2010), few empirical studies in sport management test the influence of cultural pressure on sport policy or practice adoption. In this research, I used two indicators for state norms. I found that a state norm of policy innovativeness significantly affected the speed of concussion legislation adoption. It is perhaps

the case that states with an innovative culture and history of policy-making are more open to new opportunities and have a higher propensity for risk taking, leading to a faster adoption. I did not find support for the influence of a more specific state norm for youth safety. One possible explanation is that concussion in sport is a relatively new and emerging issue in state policies around youth safety. According to my interviewees in the early adopter states, some state legislators lacked knowledge about the importance and seriousness of this issue within the category of youth safety. Taken together, the results around cultural pressure suggest that narrower or more context-specific norms may not be relevant to particular sport policies and practices, whereas broader state norms can shape receptivity and readiness to adopt more consistently. Thus, this study extends the literature on institutional change in sport management by demonstrating that certain cultural norms are important mechanisms in shaping variation in adoption within broader institutional change in sport.

The last intrastate factor I identified is a type of political pressure—local advocacy. In recent years, institutional scholars have shed light on the role of political factors, including local advocacy, in institutional change (Briscoe & Safford, 2008; Sine & Lee, 2009). Building on these insights, I found that advocacy can influence the timing of sport policy adoption. In my context, groups of community organizations and actors formed state-level advocacy coalitions as a way to promote the passage of concussion legislation. My results show that states with more advocacy resources and support around concussion adopted legislation faster. This finding extends institutional research in sport management that has focused on the influence of insiders in organizational responses, such as the role of Canadian intercollegiate athletic directors on the delegation of managerial activities (Danylchuk & Chelladurai, 1999). This study suggests that actors outside the organization or decision-making entity can significantly shape new sport

policy adoption. Future research could expand on this finding by analyzing the specific strategies and tactics state advocates—including sport organizations, advocacy organizations, and local leaders—employ in the sport policy-making process.

My qualitative findings add more nuance to my quantitative results. In particular, analyses suggest an important connection between local advocacy and disruptive events in sport policy adoption. More specifically, my findings indicate that institutional actors, such as advocacy organizations and activists, leveraged events to mobilize support for the passage of concussion legislation. I found that high-profile concussion incidents in youth sport, such as the tragic injury events of Zackery Lystedt, heightened public awareness of the severity of concussion and motivated a group of concussion advocates to create policies to address this youth safety challenge. These events later became even more significant once key advocates publicized them, and brought them to the attention of the field. Thus, my quantitative and qualitative results together imply that disruptive events can not only function as a trigger for change, but can be exploited and leveraged by strategic organizations and actors to propel the passage of new sport policies. The relationship between these two main factors aligns with recent institutional research on the value of sponsors and agents in determining the significance of disruptive events (Munir, 2005), and expands knowledge of the strategic use of events in sport by change agents. These findings also reveals that significant events in sport should not be understood as isolated occurrences, but as a “sequence of activities” (Nigam & Ocasio, 2010, p.824) that can mobilize collective action and lead to the emergence of a new sport policy or practice.

My results are mixed around the role of inter-state networks on concussion legislation adoption. One type of network I looked at was geographic proximity. Previous institutional

studies on practice or policy adoption suggest that the level of influence of one organization over another is proportional to the distance between the two (Davis & Greve, 1997; Lee & Pennings, 2002). Thus, I argued that a state's adoption of a sport policy - concussion legislation in my case - would be influenced by bordering states. In contrast to my expectation, I found that neighboring states' actions did not significantly affect the focal state's legislation adoption. One possible explanation for this result is that the Internet and electronic devices have increased communication and limited the influence of geographical distance. When a state adopts a new policy, other states can easily acquire relevant information. Although geographic proximity was not significant, my qualitative findings suggest the role of other inter-state network factors. In particular, my interview data indicate that some states were heavily influenced by leading or pioneer states' (e.g., Washington and Oregon) adoption behavior. States emulated these leaders to enact concussion legislation. Future sport management scholars can study the pattern of new sport policy adoption by specifying a leader-follower type of network. My multilevel design provides an initial framework to prompt additional consideration of the conjoint influence of intra- and inter-state factors on sport policy or practice adoption.

To sum, concussion from sport participation poses significant health problems for youth. This study contributes to a better understanding of institutional dynamics around concussion. By shedding light on the adoption of concussion legislation, this work offers insight into institutional factors relevant to the spread of sport policies, more broadly.

## **CHAPTER IV**

### **The Passage of Youth Sport Concussion Legislation: Activities and Tactics in Institutional Entrepreneurship**

In recent years, institutional scholars have expressed increasing interest in the influence of agency on institutional processes (Battilana et al., 2009; Hardy & Maguire, 2008; Garud et al., 2007). This interest has spawned a growing body of work on institutional entrepreneurship, whereby individual and/or collective actors mobilize resources and skills to create new institutions or transform existing ones (Greenwood & Suddaby, 2006; Maguire et al., 2004). The theory of institutional entrepreneurship helps explain how and why certain novel organizing solutions, such as new practices or structures, come into existence (Leca et al., 2008; Perkmann, 2002). Studies of institutional entrepreneurship have addressed diverse institutional types (Pacheco et al., 2010), which can be broadly categorized as new fields (Dorado, 2013; Hwang & Powell, 2005; Lawrence & Phillips, 2004), practices (Brown, De Jong, & Lessidrenska, 2009; Greenwood & Suddaby, 2006; Lounsbury & Crumley, 2007), technologies (Garud et al., 2002; Munir & Phillips, 2005; Wang & Swanson, 2007), and forms/structures (Perkmann, 2002; Perkmann & Spicer, 2007; Tracey et al., 2011). Relevant research has also explored the characteristics of, and conditions for, creating or altering institutions (Buhr, 2012; Dorado & Ventresca, 2013; Hardy & Maguire, 2008).

Less is known about institutional entrepreneurship in terms of the emergence of new government policies or legislation, particularly in sport (Pacheco et al., 2010). Passage of new

policies or legislation represents a major type of regulatory change (Scott, 2001) that can drive organizations to adjust their practices or procedures and shape institutional environments (Haveman, Russo, & Meyer, 2001; Hoffman 1999; Slack & Hinings, 1994), acting as important carriers of institutional change (Schneiberg & Soule, 2005; Wijen & Ansari, 2007). Scholarly understanding of the activities and tactics surrounding the creation and passage of new sport policies is lacking.

To learn how institutional entrepreneurs create and promote adoption of new sport policies, I conducted qualitative multi-case study to examine the passage of youth sport concussion legislation in Washington and Oregon. Over the past decade, a substantial regulatory change to enhance concussion management in youth athletics involves the passage of youth sport concussion legislation across states. In 2009, Washington and Oregon began to lead concussion regulatory change by passing the first two pieces of youth sport concussion legislation in the country. The passage of concussion legislation in these states was led by coalitions of regional, community-based organizations and individuals, including sport organizations, concussion advocacy groups, and attorneys and scientific experts on brain injuries (Adler & Herring, 2011; Ellenbogen, 2014). In this context, a coalition refers to a temporary alliance of actors engaging in joint activity to create and promote the passage of concussion legislation. These actors leveraged resources and skills to advance concussion regulatory change, behaving as institutional entrepreneurs (Leca et al., 2008; Wijen & Ansari, 2007). This study uses this context to explore how institutional entrepreneurs create and promote the passage of new sport policies. More specifically, I focus on unpacking the activities and tactics with which these entrepreneurs engage throughout this process.

This study contributes to institutional studies in sport management. First, this work adds

to growing efforts in recent institutional analysis in sport management to address the importance of agency in institutional processes (Heinze & Lu, 2017; Patterson et al., 2016; Reid, Washington, Mason, Glaser, 2018) by examining how institutional entrepreneurs promote sport regulatory change. Second, this study sheds light on the micro-dynamics of institutional entrepreneurship (Maguire et al., 2004) by offering a contextualized understanding of the specific actions through which institutional entrepreneurs form coalitions, build policy templates, and frame and justify the adoption of new sport policy. Further, by illuminating that institutional entrepreneurs engaged in various activities and tactics in a temporal order, this dissertation sheds light on the multifaceted nature and temporal dynamics (e.g. Perkmann & Spicer, 2007, 2008) associated with the process of promoting institutional change in sport. Empirically speaking, this research provides actionable strategies on how to leverage various expertise, aggregate divergent interests, and make the new policy or legislation appealing to wider audiences. Practitioners and policy makers can use these approaches to fulfill their political or legislative agendas, and initiate broader social change. This work also generates insight into how sport organizations interface with policy issues in addressing a public health challenge (Santo & Mildner, 2010).

In the next sections, I begin by reviewing institutional studies in sport management and the literature on institutional entrepreneurship. I then describe my data collection and analysis. Next, I present my findings around specific activities and tactics of institutional entrepreneurship in the passage of new concussion legislation. I conclude by discussing the implication of my findings.



## **Literature Review**

### **Role of Agency in Institutional Studies in Sport Management**

Recent decades have witnessed growing interest in institutional dynamics in sport management (Babiak & Trendafilova, 2011; Cousens & Slack, 2005; Edwards, Mason, & Washington, 2009; Heinze & Lu, 2017; Slack & Hinings, 1992, 1994). This line of research traditionally focused on isomorphism, emphasizing organizational conforming behavior to institutional pressures (Cunningham et al., 2001; Slack & Hinings, 1992, 1994; Silk & Amis, 2000). For instance, Slack and Hinings (1992, 1994) and colleagues (Amis, Slack, & Hinings, 2004; Danisman et al., 2006) published a series of studies exploring how different institutional pressures (i.e., coercive, mimetic, and normative) influenced the Canadian National Sport Organizations' decision to implement a more bureaucratic structure, resulting in increased homogeneity among them. A major limitation of these studies involved the lack of a critical examination of the role of agency on organizational behavior (Barley & Tolbert, 1997; Beckert, 1999; Dacin et al., 2002).

Subsequent institutional research in sport management began to consider agency in institutional analysis (Amis et al., 2002; Heinze & Lu, 2017; Stevens & Slack, 1998). For instance, Stevens and Slack (1998) examined a women's ice hockey organization subjected to institutional pressure to merge with a dominant men's association. Results revealed that although normative and coercive forces influenced organizational change, key actors' decisions were instrumental in leading the organization through the change process (Stevens & Slack, 1998). More recently, Heinze and Lu (2017) acknowledged the role of internal stakeholders (e.g., players, coaches, and team physicians) and field-level actors (e.g., the scientific community,

government, and media) in shaping the NFL's shifting responses to institutional change around player concussions.

Although sport management research has started to identify the role of agency in organizational change (Heinze & Lu, 2017; Patterson et al., 2016; Ratten, 2011), less is known about how individual and/or collective actors influence organizational processes in sport. In particular, what are the specific activities and tactics of those actors around sport policy change? This line of inquiry calls for a more holistic investigation of institutional action that extends beyond acknowledging that actors' influences on organizational behavior to examine more closely the process and specific actions by which these actors respond locally, creatively, and reflexively.

### **Institutional Entrepreneurship**

In investigating the role of agency on institutional processes, institutional scholars have emphasized the role of institutional entrepreneurship (Battilana et al., 2009; Greenwood & Suddaby, 2006; Maguire et al., 2004). Research on institutional entrepreneurship has focused on understanding how purposeful actors design new organizing solutions (e.g., new practices or policies), mobilize different resources, and exercise various skills or tactics to implement institutional change (DiMaggio, 1988; Dacin et al., 2002; Fligstein, 1997; Garud et al. 2002). Institutional entrepreneurs can be individuals (Kraatz & Moore, 2002; Lawrence & Phillips, 2004; Maguire et al., 2004), such as individual leaders in the European Commission spearheading the production of European Union's Single Market Program (Fligstein, 2001); groups (Colomy, 1998; King & Soule, 2007), such as family business groups seeking to promote the institutionalization of business models and investment practices in China (Carney & Gedajlovic, 2002); or organizations (Dejean, Gond, & Leca, 2004; Demil & Bensedrine, 2005;

Hensman, 2003), such as Sun Microsystems' sponsorship of Java as a common technological standard (Garud et al., 2002). Despite its prominence and broad empirical foci in the management discipline (Garud et al., 2007; Hardy & Maguire, 2008), sport management scholars have paid less attention to insights from institutional entrepreneurship.

Institutional entrepreneurs often engage in diverse activities and tactics to engender change. Research has suggested that activities in institutional entrepreneurship can be broadly categorized as political, technical, and cultural (Battilana et al., 2009; David, Sine, & Haveman, 2013; Hardy & Maguire, 2008; Perkmann & Spicer, 2007, 2008). Political activities involve generating social support for new practices or structures by bringing relevant actors on board (Perkmann & Spicer, 2008). For instance, Botzem and Quack (2005) found that the emergence and development of a transnational field of governance for accounting and financial reporting involved political activities, including building a central organization and enrolling influential actors. Technical activities center on the research, education, and development of detailed plans (Djelic, 1998) or theorizing new organizational practices or structures (David & Strang, 2006; Leblebici, Salancik, Copay, & King, 1991; Lounsbury & Crumley, 2007). For instance, Tracey and colleagues (2011) found that the creation of a new organizational form requires institutional entrepreneurs to theorize an explanation for why this template provides a solution to the problem. Cultural activities focus on framing new practices or structures that appeal to wider audiences (Creed et al., 2002; Lounsbury, Ventresca, & Hirsch, 2003; Rao, 1998). For example, institutional entrepreneurs justified the adoption of multidisciplinary practices in accounting firms by stressing how these changes aligned with the profession's prevailing norms and values (Greenwood et al., 2002; Suddaby & Greenwood, 2005). Fulfillment of each type of activity also depends on effective use of entrepreneurial tactics or skills. Fligstein (1997) identified a list of

social skills available to strategic actors, such as direct authority, agenda setting, brokering, maintaining ambiguity, aggregating interests, and networking to outliers.

The maturity and stability of organizational fields also carry implications for institutional entrepreneurship (David et al., 2013; Greenwood & Suddaby, 2006; Leca et al., 2008; Maguire et al., 2004). Studies have suggested that emerging fields are particularly conducive to institutional entrepreneurship because these fields are often associated with high levels of uncertainty, lack of accepted institutionalized practices and values, and less defined and more fluid relationships, which institutional entrepreneurs can harness to mobilize change (Child et al., 2007; Hardy & Maguire, 2008; Maguire et al., 2004). For example, David and colleagues (2013) examined how institutional entrepreneurs took advantage of the emergent nature of the early management consulting field and legitimized the new professional form of management consulting organizations. By contrast, a mature or highly institutionalized field is often characterized by a more stable set of rules, policies and norms that define accepted ways of operation and thus may offer fewer opportunities for innovation than emerging fields (Greenwood & Suddaby, 2006; Perkmann & Spicer, 2007). In addition, research has revealed that when fields are in crisis, the opportunity for social change is greater because a crisis can expose contradictions, incompatibilities, and tensions within fields that promote heightened awareness of problems (Battilana et al., 2009; Fligstein & Mara-Drita, 1996; Hardy & Maguire, 2008). For instance, Zietsma and Lawrence (2010) found that escalating conflict between environmental groups and forestry companies in the 1990s prompted a reversal in logging practices and inspired the creation and institutionalization of ecosystem-based management system in British Columbia.

Beyond responding to field change, institutional entrepreneurs can effect field change by developing or transforming institutional arrangements and organizing solutions (Battilana et al.,

2009; Leca et al., 2008). Studies of institutional entrepreneurship have addressed many institutional types, framed as fields (Child et al., 2007; Dorado, 2013; Hwang & Powell, 2005; Lawrence & Phillips, 2004), practices (Beckert, 1999; Greenwood & Suddaby, 2006; Lounsbury & Crumley, 2007; Maguire et al, 2004), forms or structures (Perkmann, 2002; Perkmann & Spicer, 2007; Tracey et al., 2011), and technologies (Garud et al., 2002; Munir & Phillips, 2005; Wang & Swanson, 2007). In the creation of new fields, for instance, Lawrence and Phillips (2004) examined how the interaction between macro-cultural discourses and local actors influenced the emergence of commercial whale-watching in Canada. Regarding practices, Maguire and colleagues (2004) explored how representatives of pharmaceutical companies and community organizations produced new practices of consultation and information exchange in HIV/AIDS treatment. In the area of forms or structures, Perkmann and Spicer (2007) unpacked projects and skills involved in the creation and diffusion of Euroregion, a new organizational form local authorities leveraged to coordinate policies across borders in Europe. In terms of the creation of new technology, Munir and Phillips (2005) demonstrated that entrepreneurs of Kodak, via strategic use of appropriate discourses, successfully introduced and institutionalized new technology of the roll-film camera.

The least examined institutional type is government policy (Pacheco et al., 2010). Passage of new policy or legislation is a type of regulatory change that can drive organizations to adjust corresponding practices and procedures (Scott, 2008; Haveman et al., 2001). Macro-level regulatory changes can alter both technical and institutional features of organizational environments (Haveman et al., 2001; Hoffman, 1999; Hoffman & Ventresca, 2002). On one hand, new policy can shape technical environments by influencing “barriers to entry” (Dobbin & Dowd, 1997; Haveman et al., 2001, p.254). For instance, the youth sport concussion legislation

sets specific guidelines allowing only licensed healthcare providers trained in the education and management of concussions to clear athletes with suspected concussions to return to play (Adler & Herring, 2011). On the other hand, policy changes can affect institutional environments by altering accepted norms and behavior (Haveman et al., 2001; Hoffman, 1999; Kelly & Amburgey, 1991). For instance, the inception of Title IX has transformed the culture of gender inequality and opened doors for more women to participate in collegiate sports (Anderson, Cheslock, & Ehrenberg, 2006). Further, when major regulatory changes occur, coercive pressures can cause organizations to modify their structures, processes, and strategies (Hums, Moorman, & Wolff, 2003; Maguire & Hardy, 2006; Slack & Hinings, 1992, 1994). For example, the passage of the Equal Employment Opportunity law entailed a series of practice changes to promote equity and reduce discrimination in the workplace (Dobbin, Sutton, Meyer, & Scott, 1993).

Many regulatory changes are “complex social processes” that involve diverse interests and perspectives (Bennett & Howlett, 1992; Sabatier, 1988; Wijen & Ansari, 2007, p.1079). This type of change may require collective action from a group of individuals and organizations who may join forces despite divergent interests (Buhr, 2012; Schlager, 1995; Wijen & Ansari, 2007) to create shared stories (Zilber, 2007). Institutional change in such domains thus entails numerous actors to collaborate to create or alter institutions (Jolly & Raven, 2015; Leca et al., 2008; Möllering, 2007; Wijen & Ansari, 2007). In this study, I focus on analyzing activities and tactics of institutional entrepreneurs, a coalition of individuals and organizations, in creating and promoting sport regulatory change around concussion in sports.

## **Methods**

In this study, I adopted a qualitative multi-case study approach to examine the activities and tactics a coalition of organizations and individuals employed to create and promote the passage of youth sport concussion legislation. A qualitative case study contributes to providing rich, in-depth description of a phenomenon, event, or process occurring in a particular context (Eisenhardt, 1989; Miles, Huberman, & Saldana 1994; Yin, 2009). A qualitative procedure is well suited for this study because understanding entrepreneurial activities and tactics demands detailed analysis that considers the nature of the context in which such entrepreneurship occurs. I chose Washington and Oregon as my focal cases because these two states served as pilot states and reference points for subsequent states in the adoption of youth sport concussion legislation. Qualitative case study requires diverse data sources that provide rich data for researchers to generate new theories (Charmaz, 2004); therefore, I gathered qualitative data across multiple source types (i.e., firsthand and secondary interviews, archival documents, and news articles) to provide a comprehensive understanding of specific activities and tactics and the context associated with regulatory change pertaining to youth sport concussions. To strengthen the credibility of analysis and corroborate my findings, I also triangulated different data sources (Yin, 2009). For instance, I compared interviews with archival documents regarding the importance of the passage of concussion legislation (Yin, 2015).

### **Data Collection**

Data in this study were collected from three sources. One dataset included first-hand and secondary interviews with key coalition actors who participated in the enactment of concussion legislation in Washington and Oregon. Other data came from archival documents such as the following: legislation histories (including the content of the law, bill analysis, state Senate and

House proceedings and hearings, and coalition members' oral and written testimonies); coalition leaders' published columns; review articles, and PowerPoint slides documenting the passage of concussion laws in the Washington and Oregon. News articles on youth sport concussions from top national news outlets were also included as data sources.

### ***Interviews***

My primary data source was interviews. Interviewees included key coalition members who participated in the passage of concussion legislation in my chosen cases along with individuals involved in the concussion-related research and practices to inform knowledge of the field. To identify key coalition members, I first referred to several review articles (e.g., Laker et al., 2014; Ellenbogen, 2014), legislation history (e.g., State senate and House hearings), and local news to search for organizations and individuals involved in the passage of concussion legislation. Then, I confirmed my initial list with key advocates by asking them to identify any individuals or organizations absent from the list. To secure access, I searched for interviewees' public contact information via their affiliated organizations' websites and emailed each potential participant an invitation to take part in the study. During interviews with these key individuals, I asked them to recommend additional actors who could offer valuable insights into the legislation process. In total, 15 semi-structured interviews were collected between January and June 2017. Key respondents included representatives of state-level youth sports governing bodies, brain injury advocacy organizations, athletic trainer associations, concussion researchers from academic institutions/public universities, brain injury doctors affiliated with local hospitals, government affair consultants, and high school football coaches (See Table 10 for interview participant data). Interviews were audiotaped and transcribed with respondents' permission. For interviews that were not recorded, I summarized my notes shortly after each interview.



Transcripts and summaries amounted to more than 75,000 words. Certain details have been anonymized to maintain respondents' confidentiality.

Interviews opened with questions regarding the formation and characteristics of state-level coalitions. For example, when interviewing coalition members, I asked, "How did you get involved in this legislation campaign? What motivated you to do so? What specific role did your organization play in the process of passing the concussion legislation?" When interviewing key coalition leaders, I posed questions such as "How did you get this group of organizations on board? Was the approach different among these partners?" These were followed by probes to explore the policy creation process in greater depth, including questions related to legislation writing and editing, such as "Please describe the process by which coalition actors facilitated the passage of new concussion legislation? How was the decision around which word to use in the law made?" Lastly, I elicited informants' perspectives on the evolution of the field around concussion and their evaluation on the outcome of concussion legislative campaign; see Appendix A for the detailed interview protocol. Most interviews lasted from approximately 40 to 60 minutes, with some lasting 1.5 hours.

Table 10. Summary of First-Hand Interviewees

Actors (ID)	Titles	Organizations
A1	Concussion expert/researcher	Academic institution 1
A2	Concussion expert/researcher	Academic institution 2
A3	Concussion expert/researcher	Academic institution 3
A4	Concussion expert/researcher	Academic institution 4
A5	Representative	One brain injury advocacy organization in Washington
A6	Representative	One brain injury advocacy organization in Oregon
A7	Representative	Washington State Athletic Trainer Association (WSATA)
A8	Representative	Washington State Athletic Trainer Association (WSATA)
A9	Representative	Washington Interscholastic Athletic Association (WIAA)
A10	Representative	Oregon Sports Organization A (OSOA) (pseudonym)
A11	Representative	Washington State Youth Soccer Association (WSYSA)
A12	Representative	Washington State Youth Soccer Association (WSYSA)
A13	Government affair consultant	Washington
A14	Football coach	High school
A15	Football coach	High school

In addition to first-hand interviews, I collected secondary interview data. Data sources included the 2010 NFL Concussion Summit on the Zackery Lystedt Youth Sports Concussion Law and several interviews conducted with key coalition actors in Oregon and Washington (See Table 11 for a complete list of sources). These secondary interview data contained details on the passage of concussion legislation in Washington and Oregon; background information on the evolution of the field around concussion; and scientific knowledge on concussion diagnosis, treatment, and management. These materials allowed me to further verify information collected during first-hand interviews and obtain more knowledge on the process by which concussion legislation is passed. These interviews were transcribed and generated more than 60,000 words. All sources, including videos or audio recordings, are publicly available online. Integrating secondary interview data helped me achieve triangulation.

Table 11. Summary of Secondary Interviews

Source	Actor(s)	Content
2010 Conference on the Zackery Lystedt Youth Sports Concussion Law	Washington coalition members	Contain details on background of youth sport concussion legislation issue, how to pass a youth sport concussion legislation, and remarks from concussion victim Zackery Lystedt.
Brainreels podcast	Mr. Williams (pseudonym)	Contain details on the passage of youth sport concussion legislation in the State of Oregon.
G4 Athlete	Dr. Ross (pseudonym)	Contain information on the management and treatment of concussion, the meaning of the Lystedt Law, and educational resources on concussion.
Webinar	Mr. Williams (pseudonym)	Contain details on the passage of concussion legislation in the State of Oregon.
Think Out Loud	Mr. Williams and Dr. Wilson (pseudonyms)	Contain information on the scientific knowledge of concussion and details on the passage of concussion legislation in the State of Oregon.
Brain Injury Radio	Mr. Williams (pseudonym)	Contain details on the passage of concussion legislation in the State of Oregon.
Dan Rather Reports	Richard Ellenbogen, Co-Medical Director of the NFL's Head, Neck, and Spine	Contain details on the background of the Lystedt Law and the evolution of the field.

### ***Archival documents***

To address the potential problem of inaccurate recall during interviews, I collected archival documents including legislation histories, related publications, articles, and PowerPoint slides documenting the passage of concussion laws. In particular, I collected six videos of Senate and House hearings regarding concussion legislation in Washington and Oregon. The videos lasted more than 200 minutes. These hearings can be accessed from the Washington State Legislature (<http://leg.wa.gov/>) and Oregon State Legislature (<https://www.oregonlegislature.gov/>). Hearings included coalition members' testimonies to state legislators, their rationale regarding importance of adopting concussion legislation, and legislators' comments and feedback. These data further clarified how coalition actors framed and justified passage of concussion legislation and their interaction with legislators. In addition to legislation histories, I also collected columns written by Mr. Williams (pseudonym), coalition leader in the passage of concussion law in Oregon. These pieces had appeared in the official newsletter of one brain injury advocacy organization in Oregon since summer 2005 and amounted to 37 articles that generated over 48 pages of data for further coding. Within these columns, I focused on information related to the passage of concussion legislation in Oregon and coalition actors' framing of the importance of this legislation. Archival documents revealed additional details about the regulatory change process that had not emerged in interviews and provided textual accounts of discussions.

### ***News articles***

I collected mainstream news articles and expert analysis on youth sport concussion from the *NYT* and *SI* to gain a better understanding of the field context around the passage of concussion legislation. I selected *NYT* and *SI* because of their prominence, large circulations, and

systematic coverage of concussion-related topics over time. I selected all articles manually after searching the *NYT* and *SI* databases using the keywords “concussion” and “youth sport” to identify articles published between January 1, 2001 and December 31, 2008. This time frame was chosen because this period has been identified in the literature as a key time of institutional change around SRC (Heinze & Lu, 2017).

## **Data Analysis**

I used qualitative content analysis to unpack activities and tactics in the passage of concussion legislation. Qualitative analysis is inherently dynamic and ongoing; transcripts, summaries, and archival documents were reviewed several times to identify data that either confirmed or called for modification of the analysis. I conducted multiple rounds of coding, iterating between first-hand and secondary interviews and archival documents (Yin, 2009). Thus, my analysis involved the triangulation of multiple data sources to increase confidence in my interpretations (Patton, 2002). I also consulted with organizational experts on coding schemes in the coding process; the qualitative analysis software NVivo was used to facilitate this process.

Data analysis was composed of three stages. In the first stage, I examined the field conditions that may have prompted regulatory change around youth sport concussion. Important field conditions included the following: mounting normative pressure associated with new knowledge on the long-term effects of concussions, youth susceptibility to concussions, and growing media attention; realization of the limitations of concussion-related educational practices; and youth concussion injury events. Detailed descriptions of these field conditions appear in Chapter 2. This analysis contributed to preliminary knowledge of the field regarding the passage of concussion legislation. Relevant data sources for this step included news articles, review papers, and review articles on concussions in youth sport.

In the second step, I focused on identifying a series of activities that contributed to the creation and promotion of concussion legislation. I relied on broader activity categories derived from the literature (Lawrence & Suddaby, 2006; Perkmann & Spicer, 2007, 2008), namely political, technical, and cultural. I synthesized these results by grouping qualitative data according to activity type. Further, I generated inductive codes on activity subcategories (e.g., constructing a broad coalition, building a legislation template, and legislation framing). I also paid attention to the temporal dimension in connections between these activities. Main data sources for this step included first-hand and secondary interviews, coalition members' written columns and review papers, and state Senate and House hearings.

In the third stage, I sought to understand the tactics institutional entrepreneurs employed to conduct each type of activity. Codes were developed deductively and inductively. Sampled deductive codes included brokering and networking based on Fligstein's (1997) typology of social skills and episodic framing (Iyengar, 1996; Iyengar & Simon, 1993). Examples of inductive codes included prioritizing recruitment for knowledge and legitimacy, diversifying membership, and leveraging expertise. For each tactic, I sought to understand the following: 1) how it was defined; 2) how it was used by institutional entrepreneurs, and 3) how it facilitated the passage of concussion legislation. In addition, I considered each tactic initiator's explanation of usage along with targeted members' feedback. For instance, in coalition building, one inductive code was prioritizing recruitment for knowledge and legitimacy; I verified usage of this tactic by examining the targeted actor's response. In the cultural framing of concussion legislation, I attended to coalition members' framing tactics and legislators' reactions or feedback to such framing. In this way, I aimed to construct connections and generate support for mechanisms between tactics and observed outcomes. I constantly compared these recurring

themes across all data sources. Relevant data sources for this step included first-hand and secondary interviews, coalition members' written columns and review papers, and state Senate and House hearings.

## **Findings**

Based on my findings, I developed a model of how institutional entrepreneurs, create and promote the passage of new sport policy (Figure 7). My analysis shows that in Washington and Oregon, entrepreneurs primarily engaged in three activities. First, they participated in coalition building, a political activity, using tactics including prioritizing recruitment for knowledge and legitimacy, diversifying membership, involving skeptics, and developing a shared vision. My results suggest this set of tactics enabled them to form a broad-based coalition and added various expertise and resources, enhanced the credibility of new policy, softened opposition, and facilitated collaboration in the passage of concussion legislation. Second, coalition actors shifted to technical activity aimed at assembling a concussion legislation template. Important tactics involved leveraging expertise, strategic compromise, and using neutral and inclusive language. These strategies enabled entrepreneurs to incorporate updated knowledge into legislation writing, increase the likelihood of successful passage, and reduce potential conflict in the passage of concussion legislation. Further, institutional entrepreneurs engaged in cultural activity focused on framing and justifying the adoption of concussion legislation. Relevant tactics included episodic framing, namely highlighting an individual's story and embedding the issue in a broader value context. My analysis suggests that these tactics helped to elicit sympathy, enhance the salience of the concussion issue for wider audiences, and develop a shared understanding of the importance of the passage of concussion legislation among state legislators.



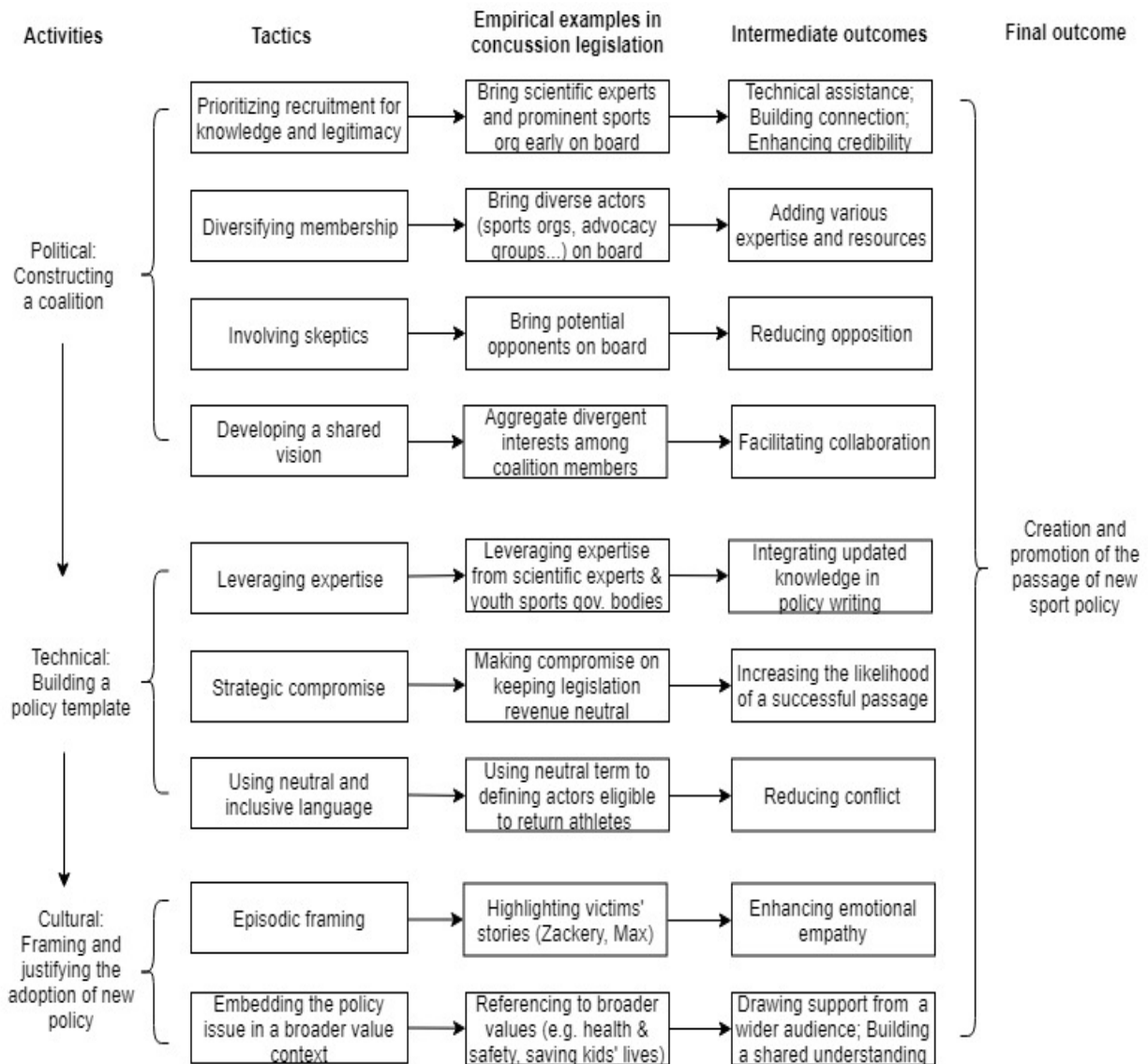


Figure 7. Activities and Tactics in the Passage of New Sport Policy

### Political Activity: Constructing a Coalition

My findings indicate that institutional entrepreneurs (here referring to the leaders of the concussion legislation initiative) in Washington and Oregon first engaged in the political activity of coalition building. In both states, coalition construction started around 2007. Major coalition-building tactics included prioritizing recruitment for knowledge and legitimacy, diversifying

membership, involving skeptics, and developing a shared vision, all of which enabled actors to form a broad-based coalition of organizations and individuals across diverse fields (e.g., brain injury advocacy, professional and youth sports, athletic training, and the scientific community). My analysis suggests that building a broad coalition facilitated the passage of concussion legislation due to the availability of broader expertise and resources, improved credibility of new legislation, and fewer potential barriers in the adoption process. As noted by a Washington state representative at the 2010 Conference on the Zackery Lystedt Youth Sports Concussion Law, *“It’s very important to really build that broad coalition, prior to introducing any specific legislations.”*

### ***Prioritizing recruitment for knowledge and legitimacy***

My analysis shows that institutional entrepreneurs prioritized recruitment for knowledge and legitimacy to build a coalition, whereby leaders were selective and strategic in inviting others to join the coalition. As stated by Mr. Brown (pseudonym), representative of one brain injury advocacy organization in Washington, *“Before a change can happen in a meaningful way, it is important to identify key stakeholders around the issue and have dialogue with them. Dialogue with stakeholders leads to shaping the idea proposed and then it has greater clarity, momentum, and more folks pushing it along. There needs to be a buy-in from the key leaders and stakeholders on the change you are seeking* (personal communication, February 6, 2017).”

In both states, concussion legislation initiators began by soliciting input from individuals with scientific, technical knowledge on brain injury and SRC. In Washington, Mr. Brown first invited Dr. Ross (pseudonym) to join the coalition. Dr. Ross is a well-respected scientific expert in sports concussion clinical care at a public university in Washington and has assumed a leadership role in several concussion institutes and programs in the state. Similarly, in Oregon,

Mr. Williams (pseudonym), representative of one brain injury advocacy organization in Oregon, invited Dr. Wilson (pseudonym) on board first. Dr. Wilson is a leading expert on sports concussion at a public university in Oregon and serves as the co-director and/or medical advisor for several concussion management programs in Oregon.

My analysis suggests that targeted recruitment of scientific experts with extensive knowledge of brain injury strengthened the coalition and technically facilitated the passage of concussion legislation. As pointed out by respective coalition members in Washington and Oregon, whenever actors had questions related to the science of concussions (e.g., effects, diagnosis, prevention, and management), they turned to Dr. Ross and Dr. Wilson for advice:

*“Dr. Ross led the medical community about how important concussion was. I mean we started this, and nobody really understood that whole concept of concussion that you didn’t have to lose consciousness to experience a concussion. So having him and his expertise on the medical side was really important.”* (A13, personal communication, April 18, 2017)

*“The big focus that we realized that would be the big driver was the medical side of things. Dr. Wilson assisted us in the understanding of brain science, the understanding of how serious second impact syndrome is, how serious multiple concussions can be, and how serious any concussion can be and is. ... So we really focused heavily on the science of it, on why we need to do this.”* (Mr. Williams, personal communication, May 3, 2017)

An analysis of the field also shows that scientists specializing in SRC have played an important role in advancing normative changes around concussion in sports (See Chapter 2 for detailed description). Recruiting these scientific experts may confer the new concussion policy more legitimacy.

In addition, concussion legislation leaders in Washington brought high-status and resource-rich sport organizations on board early. They targeted the NFL’s Seattle Seahawks in particular; the team is the only NFL franchise in the Pacific Northwest region of the U.S. and enjoys support from a wide geographical region, including Washington, Oregon, Montana,

Idaho, and Alaska. In 2008, the franchise value of the Seahawks totaled approximately \$921 million. My analysis suggests that bringing prominent, highly visible sport organizations such as the Seahawks into the coalition appeared to encourage the passage of concussion legislation in several ways. First, professional teams' participation promoted awareness of the new concussion legislation initiative among a broader audience. For instance, the Seahawks leveraged its resources and the influence of its alumni to disseminate the message of the concussion policy to a wider group of listeners. As described by a Seahawks representative:

*“As relates to a professional team, it’s very important to find a team like us who are really [a] great communicator and really good connector. So we are able to through many meetings with Mr. Brown and Dr. Ross to sit down and say who do we know that we can connect and bring to the table to have a constructive conversation to move the ball forward in this case, and then utilizing the assets that we have within our own building, such as reaching out to our meeting using the power of our meeting network, and utilizing our in game stadium during our broadcast. Getting the message out to our alumni and asking them to step up and serve as an ambassador to get the word out and reaching their network.”* (Conference on the Zackery Lystedt Youth Sports Concussion Law, 2010)

Second, high-status sport organizations, with their own power and network contacts, cultivated connections with other sport organizations and associated resources in the field. For instance, the Seahawks harnessed its network connections and recruited the Washington Interscholastic Activities Association (WIAA), Washington’s youth sports governing body, which has rich connections with statewide public and non-public middle and high schools. Dr. Ross (personal communication, February 21, 2017) reviewed how the WIAA was brought on board, *“The Seahawks first suggested to us that it will be very smart to involve the WIAA. ... He [Seahawks representative] suggested to us that the WIAA would be an essential partner, because they were the ones that actually wrote the policy for high school and middle school athletics. ... So [the] Seahawks helped us reach out to them. They were very interested. They were a very*

*important partner.” This recruitment process was also confirmed by the target of the recruitment. According to a representative of the WIAA (personal communication, April 21, 2017): “We found out that there was a group that wanted to do something with concussion legislation...They made contact with us through the Seattle Seahawks.”*

Further, my analysis suggests that prioritizing recruitment of high-status sport organizations may render the new concussion legislation (creation process) more credible and legitimate. Once concussion legislation received sponsorship and support from such elite sport organizations, others became more attuned to this policy change. As commented by a Washington coalition member,

*“Having the Seahawks on board and its community outreach really lent credibility to the cause and to the population at large. Because [oftentimes] people see Seahawks as [a] trusted source and the value of the Seahawks name really helps propel this issue forward and get more people [to] buy in without having to ask [questions] like ‘What you are trying to do?’ Well, automatically this issue is credible.”* (Conference on the Zackery Lystedt Youth Sports Concussion Law, 2010)

### ***Diversifying membership***

My findings indicate that institutional entrepreneurs also diversified membership in coalition building. In both states, concussion legislation leaders recruited appropriate partners with complementarities in terms of skills, resources, experience, and spheres of influence. Entrepreneurs approached potential partners with a clear idea of how they could collaborate toward the advocacy goal. As noted by Dr. Ross (personal communication, February 21, 2017):

*“We looked at people who would have an interest in this legislation. And that interest would be from the athlete perspective, from organization that took care of young athletes, from the medical perspective, and my perspective, and legal perspective. ... We began to look at partners who would have an interest in the same topic perhaps from a different perspective.”*

Although state-level coalitions in both states varied in membership size, their compositions displayed similar patterns. The state-level coalition was composed of a diverse group of actors, including: 1) victim and victims' family (e.g., Washington: Zackery Lystedt and his family; Oregon: Max Conradt and his family); 2) attorneys handling traumatic brain trauma cases and litigation; 3) brain injury advocacy groups; 4) scientists in SRC and academic institutions; 5) sport organizations (e.g., professional sports teams, youth sports governing bodies, athletic trainer associations); 6) doctors and/or medical organizations; 7) government representatives (e.g., state representatives, senators, government affair consultants); and/or 8) insurance and risk groups.

My analysis shows that diversifying membership in coalition building contributed to gathering various expertise and skill sets, perspectives, and resources to facilitate the passage of concussion legislation. As illustrated by my findings, victims and families enhanced public awareness of the seriousness of SRC; brain injury attorneys provided legal counseling related to legislation; scientific experts and doctors in SRC offered advices on technical and medical issues surrounding concussions; brain injury advocacy groups provided resources and skills regarding concussion management and prevention; sport organizations brought in youth athletic resources and contacts; government representatives and consultants provided information on navigating the legislation process; and insurance groups provided guidance on handling relevant risk and claims. This demonstrated the importance of having multiple stakeholders engaged in the coalition as they can provide various expertise. According to respective coalition members in Washington and Oregon:

*"I think the coalition was strongest because we had all of these diverse elements...I think having Mr. Brown, Dr. Ross and their expertise and then bringing all the elements together such as the Washington State Youth Soccer, which represents 200,000 kids playing youth soccer each week in private leagues. We brought in the Washington State*

*Athletic Trainers Association. We brought in Canfield & Associates, now known as Clear risk, an insurance risk management business that represents self-insured school districts, and the WIAA. I don't think you can make legislation work when it comes to youth sports unless you are able to look at all of those groups, brands, and committed leaders."* (A7, personal communication, April 27, 2017)

*"We developed a coalition that was wide range. ... Down here in Oregon, we have the brain injury advocacy organization (pseudonym) with regard to brain injury support and prevention. ... We have legislators in the Oregon legislature, both in the Senate and on the House side, who are extremely knowledgeable about brain injuries. ... We also have a very vocal group of medical practitioners. We have doctors who [work] with the Oregon concussion awareness and management program. We also work with sports governing bodies, which brings their incredible medical knowledge and kind of teaching ability to the conversation. So yes, in Oregon we're very lucky to have a large group of individuals who are committed to the cause of reducing traumatic brain injury and in helping those who have suffered traumatic brain injuries to recover to the fullest extent possible."* (Mr. Williams, public interview, October 2, 2015)

A state representative in Washington also acknowledged the importance of building a diversified coalition, *"I think it was very important that legislators in our state heard the same message from a variety of different advocacy groups."* (Conference on the Zackery Lystedt Youth Sports Concussion Law, 2010)

### ***Involving skeptics***

My findings show that institutional entrepreneurs in both states also involved skeptics that may possess different opinions about legislation. These actors later became important partners and supporters in passing the legislation. This coalition-building tactic appeared to reduce or soften potential opposition while expanding support for the passage of concussion legislation. As noted by a coalition member (personal communication) in Washington, *"It was important to identify anybody who may be opposed to this and bring them in. We [needed] to identify them and understand their opposition, and bring them in. And they actually became one of the strongest supporters."*

As a specific example, in Oregon, one sports organization—Oregon Sports Organization A (OSOA) (pseudonym) was not involved in the initial draft of concussion legislation. Representatives from OSOA attended the first public hearing of youth sport concussion legislation and posed questions regarding the feasibility of the bill. The original Oregon concussion bill contained a section requiring school districts to replace helmets as needed. As summarized in the original bill, *“Direct school district to ensure that football helmets be annually inspected and to replace all helmets within 10 years. Prohibits use of football helmets that do not meet standards adopted by State Board of Education”* (Senate Bill 348 Summary, April 17, 2009). OSOA representatives raised concerns about this bill and its rather limited focus on issues related to helmets in football. They were concerned that the section pertaining to helmet replacement may bring a financial burden to the local government and schools. According to an OSOA representative at the Oregon concussion legislation hearing,

*“My biggest concern of this helmet bill is the yearly reconditioning. There is gonna be a financial cost to the schools for that. If we say we have 275 high schools playing football, which brought us a fair estimate. An average of 50 helmets per school. 40 bucks per helmet. \$550 grand. ... Who pays for it? School districts [pay depending] on size, insurance, or direct charges on athletes.”* (Oregon public hearing on SB348)

After the initial hearing, the OSOA was invited to join the coalition and provided valuable feedback to revise the legislation; the organization later became a key sponsor of the updated concussion bill. The section that originally required school districts to replace helmets as needed was omitted to avoid fiscal costs that might have derailed the bill. Per an OSOA representative (personal communication), *“Once we became involved and we recommended some changes we thought would be beneficial. There was no push back, so it continued as a collaborative effort which was good.”*



### ***Developing a shared vision***

My analysis indicates that institutional entrepreneurs also paid attention to developing a shared vision among coalition members. In Washington, different coalition members represented different entities or interest groups. For instance, the WIAA focused on public high school sports, whereas the Washington State Youth Soccer Association (WSYSA) centered on private sport groups. In order to aggregate disparate interests among multiple stakeholders, coalition leaders used “the safety of youth and the safety of sports” as coalition magnets (an idea serving as a focal point for coalition building) and emphasized that the purpose of passing concussion legislation was to improve the safety of all youths and all sports. My analysis suggests that developing a shared vision helped coalition members find common ground and thus facilitated collaboration among involved parties, as reflected by a coalition member in Washington, “*We want to get along. We believe we have a connection. ... I think the one thing that we have in common that we cared about the safety of our youth and the safety of sports. When you look at it from that perspective, there is no territory. There is no, oh this is about soccer, this is about football, this is about this age group or that age group, it’s about school sports, it’s about non-school sports. No really it’s about kids. It’s about safety. When you boil it down to about kids and safety. It just cuts right to what you are trying to work on. And then you can work together. It’s a lot easier*” (A9, personal communication, April 21, 2017).

### **Technical: Building a Legislation Template**

After the coalition was built, institutional entrepreneurs (here referring to the entire coalition of organizations and individuals) shifted to technical activities and focused on building a legislation template. An analysis of the context during this stage shows that no sport concussion legislation was adopted until 2009. As a coalition member in Washington stated, “*We*

*are the first state to pass concussion legislation. There was no template for us to learn”* (A12, personal communication, April 25, 2017). Similarly, a concussion legislation advocate in Oregon indicated, *“Well at this time there were no laws in the country whatsoever that dealt with a coach’s responsibility or high school’s responsibility with regard to a concussed player”* (A6, personal communication). Given the absence of a concussion legislation template from which coalition members in both states could learn, institutional entrepreneurs were left to draft a new sport policy with little guidance. Choosing the right words for the first youth sport concussion legislation became an important task; major tactics in this stage included leveraging expertise, strategic compromise, and using neutral and inclusive language. My findings suggest these tactics enabled entrepreneurs to integrate updated knowledge in legislation writing, increase successful passage, and reduce potential conflict in passing concussion legislation.

### ***Leveraging expertise***

My findings show that in both states, institutional entrepreneurs leveraged knowledge from scientific experts and youth SGBs in building a legislation template. My analysis suggests that harnessing expertise from these entities contributed to updated knowledge in creating new concussion legislation. First, institutional entrepreneurs in both states applied expertise from scientific and medical experts in brain injury. These experts assisted in drafting legislation by providing counseling on the symptoms, impacts, and management of concussions. In Washington, Dr. Ross offered information about concussion symptoms and informed coalition members that youth athletes need not pass out or lose consciousness to have a concussion. According to a Washington coalition member (A11, personal communication, April 25, 2017), *“Dr. Ross told us that you didn’t have to lose consciousness to experience a concussion.”* The Washington concussion legislation acknowledged and stated that concussions may still occur

without losing consciousness, “*Concussions occur with or without loss of consciousness, but the vast majority occurs without loss of consciousness*” (Washington Youth Sports Head Injury Policies of 2009, p.2). Dr. Ross also offered information about the risks associated with a concussion if not treated properly (public interview, April 10, 2013), “*Sometimes there can be tragic consequences, particularly for young people. Mismanaging a concussion, for young people, can have life threatening consequences.*” This advice was accepted and reflected in the words of the legislation; the statute stated, “*Continuing to play with a concussion or symptoms of head injury leaves the young athlete especially vulnerable to greater injury and even death*” (Washington Youth Sports Head Injury Policies of 2009, p.2-3).

Similarly, in Oregon, concussion experts provided valuable feedback regarding the management and prevention of concussions when drafting the legislation. These experts recommended including a “no same-day return to play” clause, which mandated that athletes suspected of sustaining a concussion would be kept out of play on the day of the injury. According to Dr. Wilson (public interview, August 4, 2014), “*I would say in Oregon here and particularly the Portland Public School and my university, we were lecturing and talking about this to doctors and coaches that you’re going to have to keep people out the same day if they have a concussion. ... And later, with the help of Mr. Williams and the brain injury organization, we were able to move that into a state law.*” This recommendation for “no same-day return to play” policy appeared in the Oregon concussion legislation as follows: “*A coach may allow a member of a school athletic team who is prohibited from participating in an athletic event or training ... to participate in an athletic event or training no sooner than the day after the member experienced a blow to the head or body*” (Oregon Senate Bill 348 of 2009, p.1).

Further, my results revealed that institutional entrepreneurs in both states leveraged the expertise of SGBs in designing concussion guidelines and educational materials. In Washington, the WIAA developed guidelines and informational forms to educate athletic coaches and athletes and their parents about concussions during youth athletic activities. In Oregon, the OSOA provided valuable insight into modifying the concussion legislation and recommended using the OSOA concussion protocol as a guideline. According to a representative of the OSOA (personal communication),

*“As a committee in 2008, we put in a rule at the OSOA level that stated that if an athlete shows signs or symptoms of concussion that they should not return to play on the same day. They needed to [be] evaluated and cleared by a physician. ... After the first public hearing, we thought that the ideal bill would be essentially taking the rule that we put in from the previous year and then coupling that with coach education.”*

### ***Strategic compromise***

Institutional entrepreneurs in both states also made strategic compromise in selecting the proper words for the initial concussion legislation. My analysis suggests that compromising strategically on sensitive issues improved the likelihood of successful passage of concussion legislation. In Washington, institutional entrepreneurs compromised on making the legislation revenue neutral, such that the proposed bill would not cause the state government to bear additional costs. The concussion legislation was proposed in 2009. In the original bill, institutional entrepreneurs included a clause requiring each school district to hire athletic trainers to be at every athletic event. An analysis of the context during this stage shows that the US was still suffering from the global financial crisis, of which state governments were a prominent casualty. With growing unemployment and shrinking revenues, state governments were forced to squeeze local budgets. Given these dire financial circumstances, a bill that would place extra costs on the state government would be difficult to pass. A state representative in Washington

pointed out, *“It’s very important to make sure that [the bill is] revenue neutral because of the tough economic climate that all states are facing”* (Conference on the Zackery Lystedt Youth Sports Concussion Law, 2010). To ensure successful passage of the first concussion legislation, institutional entrepreneurs came to a strategic compromise on the revenue neutral clause. Per a coalition member (personal communication) in Washington,

*“When we [started] the legislation in Washington State, at the time, Washington was in a bunch of [crises]. There was the Great recession in 2008. The state was losing money. Attached to the original bill was we [wanted] the states to pay for athletic trainers to be at every athletic event at every school statewide. When we started to take it to the state legislators, we found out very quickly that ‘If you want to pass it with this bunch of numbers attached, it will not get passed.’ So what we did was we pulled that out of the bill, and left that issue for another day.”*

In Oregon, institutional entrepreneurs also made a strategic compromise on the legislation. In the original bill, institutional entrepreneurs hoped the legislation would apply to any youth athlete throughout the state. However, for political reasons, the bill was ultimately limited to athletic teams to ensure a successful passage of the legislation. As illustrated by a coalition member (personal communication) in Oregon, *“For political reasons, Max’s law was limited to high school sports. Being the first in the country, we really didn’t have the opportunity to address the full problem.”*

### ***Using neutral and inclusive language***

In both states, institutional entrepreneurs took another tactic: wordsmithing of language by using neutral and inclusive language in building a legislation template. My analysis suggests that maintaining neutrality and inclusiveness in language selection helped to reduce conflict and tension in passing concussion legislation. For instance, to alleviate inter-group conflict in Washington, institutional entrepreneurs used neutral term in defining which actors were eligible to return athletes to play. These entrepreneurs were concerned that an overly narrow definition

may exclude certain groups, leading to conflict and tension. Rather than providing a list of eligible entities, institutional entrepreneurs employed the more general and neutral term “licensed healthcare providers trained in the education and evaluation of concussion.” Per a coalition member (personal communication) in Washington, *“We were told that if we began to delineate who and who cannot clear these athletes, there would be politics if groups were excluded. ... So we learned that if we just said ‘licensed health care providers trained in the evaluation of management of concussion’, that was neutral enough and that phrase would be later interpreted by our coalition partner, the WIAA, who was the rule-making organization for school sports in Washington.”*

The same theme appeared in Oregon, where institutional entrepreneurs strategically omitted specific categories of healthcare providers. Oregon’s concussion legislation required that athletes *“Receive a medical release form from a healthcare professional”* (Oregon Senate Bill 348 of 2009, p.1). Institutional entrepreneurs used a more neutral term to bind a group of eligible actors without adhering to particular interpretations, thus minimizing unnecessary conflict.

### **Cultural Activity: Framing and Justifying the Adoption of Concussion Legislation**

Institutional entrepreneurs later shifted to cultural activities focusing on framing and justifying the adoption of concussion legislation. Major tactics included episodic framing, defined as highlighting an individual’s story and embedding the policy issue within a broader value context. My analysis suggests these tactics contributed to passing concussion legislation by enhancing emotional sympathy, causing the issue to appeal to a wider audience, and building a shared understanding of the importance of the new legislation among state legislators.

### ***Episodic framing: Highlighting a particular individual's story***

In both states, institutional entrepreneurs used episodic framing by highlighting a particular victim's story to mobilize supporters and increase the persuasive appeal of their policy claim to state legislators. Episodic framing often depicts an issue by using a concrete example, event, or story, such as addressing homelessness by presenting a story of the plight of a specific homeless person (Gross, 2008; Iyengar & Simon, 1993). My findings show that entrepreneurs used strong emotional stories to articulate the potential impacts of policy changes on local individuals and families and enhance sympathy among coalition members and state legislators involved in passing concussion legislation.

My analysis indicates that episodic framing was used in two stages. Concussion legislation initiators first used the stories of Zackery and Max to mobilize supporters in coalition building. Many coalition members indicated that they were emotionally touched by the stories of Zackery and Max. The specific emotions elicited by these victims' stories were associated with increased support for joining the coalition to promote the passage of concussion legislation. As noted by several coalition members in Washington:

*"When I heard about his story, I became an early and enthusiastic participant in this effort."* (A1, personal communication, February 21, 2017)

*"So when I was working for the WSYSA, Dr. Ross and Mr. Brown called me up and said 'We'd like to talk you about the concussion laws in regards to Zackery Lystedt.' ... So I sat down. I listened to Dr. Ross and Mr. Brown and understood the whole story of Zackery Lystedt. It's simply an amazing story by the way of what Zack has accomplished. All credit should be given to Zack and his family for what they've been able to accomplish in America in regards to concussion legislations."* (A11, personal communication, April 25, 2017)

*"They had a tremendously compelling story with Zackery Lystedt, the young man that was injured. His parents were very motivated to try to do something positive for that personal disaster. ... I was intrigued. As a parent, I also had some passion around this issue."* (A9, personal communication, April 21, 2017)

Later, institutional entrepreneurs in both states used Zackery Lystedt and Max Conradt as examples to render the concussion legislation more compelling to state legislators. When retelling the stories of Zackery and Max before legislators, entrepreneurs first focused on the life-long consequences of the athletes' injuries on the victim's personal lives and their suffering families. For instance, when sharing Max's story, entrepreneurs in Oregon stressed that Max, formerly a high-performing student who dreamed of becoming a sports journalist, had been permanently injured due to repeated concussions. As Max explained at the Oregon hearing,

*"In October 2001, I was a senior. I had a 3.95 GPA. I only had one B. On October 19, I was my team's quarterback on defensive end. When I suffered a few hits, I collapsed at halftime during a game. I was rushed to the hospital. They couldn't air fly me 'cause I was too foggy. I suffered a tremendous brain injury. I was in a coma. I was almost dead for two months. I was in a coma for two months. I was in a walking coma for another two months. Four months in a coma. I had a dream of being a sport journalist. But it's been on hold for many years."*

Next, institutional entrepreneurs emphasized the preventable nature of these accidents, suggesting that these tragedies could have been averted if Zackery and Max had not been asked to return to play after suffering an initial concussion. As Zackery's father shared at the Washington concussion legislation hearing, *"Zack was hurt and it was a preventable injury. We didn't know that when it happened. We know that now. We know that if Zack [had been] taken out of the game, we would not be living the life we are living. And I don't think people really understand what that life is."*

Further, institutional entrepreneurs stressed that by passing concussion legislation, they could change and save people's lives. As Max testified, *"I hope you pass my bill. It will make an amazing difference in high school and middle school kids' lives."* Zack's father said, *"Zack's message from our family needs to be loud and clear [in] that we have the ability to change*



*people's lives. Zack is exceptional. Zack's purpose in his life now is to change other people's lives. That takes all of you to make a law, to help other people get through this in their lives. They don't have to [go] through this."*

My analysis suggests that the stories of Zackery and Max engendered sympathy among state legislators, as several stated they were emotionally touched by the victims' experiences. The elicited emotions may have influenced legislators' acknowledgement of the importance of passing concussion legislation. In Washington, a state representative expressed sympathy toward Zack and his family: *"This is one particular issue that we can join together and really make some momentum change in a very profound and positive way. ... As a father of a middle school boy who played football, I cannot even imagine the emotions and the feelings that Mr. and Mrs. Lystedt went through."* Another Washington senator proposed naming the legislation after Zackery Lystedt, *"I know from time to time we name a legislation after people, in honor of people. I'd like to consider [getting] this bill named after Zackery Lystedt."* Similarly, in Oregon, state legislators expressed fervent support for Max and his family after hearing their testimony, noting that if the bill was passed, it could save lives:

*"Thank you very much. You've done an incredible job. You clearly wrap up why this is an important bill. I'm sorry that you have to experience this. This is a tremendous loss for you. Max, thank you for sharing your story. You are going to help a lot of young people. You are going to save some lives. Thank you very much for making this happen."* (Oregon concussion legislation hearing)

### ***Embedding the issue in a broader value context***

In both states, institutional entrepreneurs framed and justified the adoption of concussion legislation by embedding the issue in a broader value context to underscore the importance of concussion legislation for all sports and athletes of all ages as a matter of life and safety. My analysis suggests that this framing helped to make the concussion issue accessible to a broader

audience and contributed to a shared understanding among state legislators of the importance of passing concussion legislation.

First, institutional entrepreneurs emphasized that concussions are more than a football issue; the concussion bill would be relevant to all sports. These entrepreneurs cited data demonstrating that all sports and recreational activities in which children and youth engage carry a risk of concussions. They stressed that passing concussion legislation would extend concussion prevention and management outside of popular contact sports, such as football or hockey, and ensure that all young people who sustain a concussion have access to proper protection and care. According to a representative of the WIAA (A9, personal communication), *“When you look at the fact that concussion affects everybody, all youth sports, every sport. When you start looking at from that perspective, then it’s much more inclusive, and much more easy to get your arms around, and that does take state legislators [getting] involved.”* Similarly, a representative of a sport organization at the Oregon hearing echoed that the concussion issue pertained to all sports:

*“This is not a football problem, not a football problem at all. This is an all-sport problem. This is a huge girl soccer problem. Compared to the number of girl soccer [players] to the number of boy soccer [players], it is about 60% higher. Look at girl basketball. Girl basketball and boy soccer you think are much different when it comes to roughness and [hitting] each other. Those girl injuries are happening a lot. Wrestling is right up there with girl basketball. Cheerleaders are up there, not on accident.”*

Further, entrepreneurs underscored that concussions comprise an important matter of public safety and health affecting youth of all ages, and that the concussion legislation, if passed, would maximize health and safety for this group. Accordingly, the concussion issue was placed within a broader value context of public safety.

*“My interest, as a physician who spent his life taking care [of] people with brain injuries, is that this is an opportunity here to do something which is lifesaving. ... I spent my whole life in trying to help people from getting hurt and I am remarkably unsuccessful. Here is the situation. With the right care, you can stop someone from dying every year and in*

*every state, in every sport. This is so compelling to me. As a healthcare provider, I am so thrilled to be part of this group to discuss this with you. Here is the chance to do something for public safety, which is unprecedented.”* (Dr. Ross, Washington concussion legislation hearing)

*“Tragedies happen and they are horrible. But also horrible is the kid who missed a semester of college, high school, kids who don’t remember. There are a lot of these kids who are subtly affected. Yet it affects their lives in big ways. ... I would ask you to sit back a little bit and think a little bit of the bigger picture of maximizing the health and safety for young athletes, not just football players, but also soccer players and lacrosse players, minimizing worries and liability issues for coaches and athletic directors.”* (Representative of sport organization, Oregon concussion legislation hearing)

My analysis suggests that embedding the concussion issue in a broader value context brought the issue to a larger audience and facilitated shared understanding among state legislators. As several Washington representatives stated at the hearing,

*“One of our common goal for all of us is health and safety for our kids, whether it be a coach, a risk manager or as a legislator looking for the wellbeing of all of our kids. Thank you for your time and efforts on behalf of our kids, our coaches, our parents, our grandparents to make our playing field level for all kids in the field of concussions and head injuries.”* (Representative of insurance and risk group, Washington concussion legislation hearing)

*“People think it’s really a football issue. When really it’s a lot bigger issue than that. We’ve got to keep reminding people that it’s a soccer issue, it’s a gymnastic issue. It’s a basketball issue. It can happen in any sport. We just need to be vigilant about concussions, not about football, not just basketball. It’s about concussions....I still think what you think about Washington’s law is that it not only impact schools, it impacts youth sports. It impacts any group that uses public facility. That’s extremely unique. I think that’s the real power of Washington’s legislation.”* (Representative of the WIAA, Washington concussion legislation hearing)

The influence and power of such framing was well received by state legislators; their feedback to and interaction with coalition members indicated they agreed that the concussion issue was a crucial public health matter touching all youth in all sports. Additional qualitative data can be seen in Appendix B.

*“This bill can be profound in its positive impact for youth sport throughout the state. ... Any minimum cost associated with the implementation of the bill is far outweighed by the real profound and positive impact we are gonna make for youth sport and kids across the state.”* (Washington state legislator 1, Washington hearing)

*“The most important thing is to really have a sense of purpose that this will save lives. This bill, if enacted, will save lives.”* (Washington state legislator 2, Washington hearing)

*“This bill deals with traumatic brain injuries. It deals with sports, not only football, but all sports. ... This is a very serious issue. Our children are very vulnerable.”* (Oregon senator’s comment at Oregon hearing)

## **Discussion**

While sport management scholars have explored how institutional pressures constrain or influence organizational behavior through coercive, cognitive, and normative mechanisms (Babiak & Trendafilova, 2009; Danisman et al., 2006; Edwards et al., 2009; Gammelsæter, 2010; Slack & Hinings, 1994), less attention has been devoted to how individual and/or collective actors influence organizational and institutional processes in sport. In exploring how coalitions of individuals and organizations facilitated the passage of youth sport concussion legislation in Washington and Oregon, this study provides insight into how institutional entrepreneurs promote institutional change around sport policy. In particular, I found that in the process of passing new sport policies, institutional entrepreneurs first engaged in political activity focused on constructing a broad-based coalition, then technical activity centered on building a policy template, and later cultural activity aimed to justify the adoption of new sport policy. Further, I identified political, technical, and cultural tactics and associated intermediate outcomes that helped pass new sport policies. In this section, I discuss the contributions of this study to the institutional literature in sport management; specifically, I note how my findings expand understanding of the multifaceted nature and temporal dynamics associated with the process of

institutional entrepreneurship around sport policy, extend knowledge of the role of emotions in institutional change in sport, and generate insight into how high-status and resource-rich sport organizations contribute to sport policy change.

### **Multifaceted Nature and Temporal Dynamics**

The institutional literature in sport tends to focus on a macro-analysis of how field-level factors influence organizational and institutional processes (Berrett & Slack, 1999; Gammelsæter, 2010; Nagel, Schlesinger, Bayle, & Giauque, 2015; Naraine & Parent, 2016; Trendafilova et al., 2013); and neglects the role of agents and their associated activities in fostering institutional change. By showing that institutional entrepreneurs engaged in a variety of activities (e.g., political, technical, and cultural) to advocate for sport regulatory change, this study generates insight into the multifaceted nature of entrepreneurial efforts in promoting institutional change around sport policy - each type of activity highlights an essential aspect thereof (Lounsbury & Crumley, 2007; Maguire et al., 2004; Perkmann & Spicer, 2007). These diverse types of activities institutional entrepreneurs carried out, in general, aligned with Maguire and colleagues' (2004) study on the adoption of new HIV consultation practices; however, my findings suggest that the specific components of these activities may be different depending on the nature of change and characteristics of the field. For instance, in the case of the adoption of HIV practices, institutional entrepreneurs engaged in a type of political activity centered on occupying legitimate subject positions (Maguire et al., 2004). This may be associated with the emerging field condition of HIV/AIDS treatment advocacy that lacked clearly defined leading actors; occupying subject positions with legitimacy, hence, provided institutional entrepreneurs access to resources to capitalize change. In my study of the passage of concussion legislation, the political activity of institutional entrepreneurship involved

constructing a broad-based coalition. This political activity may have been prompted by the field context: concussion in sports had already become salient to the interests and objectives of various individuals and organizations. Thus, recruiting diverse individuals and organizations was important for expanding support for the passage of new sport policy.

My findings also indicate a temporal dimension to the activities of institutional entrepreneurship around sport policy. The institutional entrepreneurs initially focused on political activity - building a broad-based coalition to derive diverse skills and resources and mobilize support for regulatory change; then, it shifted to technical activity - building a policy template, which provided guidance and reference for following states in developing similar policies; and later it focused on cultural activity to justify the importance of passing new sport policies. This finding builds up Perkmann and Spicer's (2007) work on the creation and diffusion of a new organizational form, by illuminating the temporal dynamics (Langley, Smallman, Tsoukas, & Van de Ven, 2013; Lawrence, Winn, & Jennings, 2001; Perkmann & Spicer, 2007) associated with the process of promoting institutional change in sport.

My findings show that in fulfilling each type of activity, institutional entrepreneurs employed various skill sets, including political (e.g., prioritizing recruitment for knowledge and legitimacy, diversifying membership), technical (e.g., leveraging expertise, using neutral and inclusive language), and cultural tactics (e.g., developing a shared vision, episodic framing). In a study on the creation and diffusion of a new organizational form, Perkmann and Spicer (2007) showed that the types of tactics institutional entrepreneurs employed shifted in a linear order: from political, to analytical/technical, and then to cultural skills. However, I found that in the creation and promotion of new sport policies, cultural tactics were integrated throughout the process. For instance, to build a coalition, institutional entrepreneurs not only used political

tactics such as involving skeptics, but also deployed a cultural tactic - developing a shared vision among coalition members to facilitate collaboration among them. This finding demonstrates the importance of leveraging cultural skills in institutional change around sport policy (Lawrence & Phillips, 2004; Lounsbury & Glynn, 2001; Munir & Phillips, 2005; Zilber, 2007). Cultural skills can be integrated throughout the change process. As illustrated by these changing actions, I argue that understanding the activities and tactics involved in advancing sport regulatory change requires a fine-grained understanding of these temporal dynamics. The multifaceted nature and temporal dynamics of activities and tactics and their intricate linkage to observed outcomes should also be of value in future inquiries in examining the creation or transformation of other kinds of institutions in sport.

### **Role of Emotions in Institutional Change in Sport**

This study adds knowledge on the role of emotions in institutional change in sport (Creed, DeJordy, & Lok, 2010; Creed, Hudson, Okhuysen, & Smith-Crowe, 2014; Welter & Smallbone, 2011; Voronov & Vince, 2012). Although the role of emotions in institutional processes has been increasingly attended to in the broader management and organization studies literature (Brown, Ainsworth, & Grant, 2012; Creed et al., 2010; Creed et al., 2014; Maitlis & Sonenshein, 2010; Moisander, Hirsto, & Fahy, 2016), it is less examined in existing sport management scholarship. My findings show that institutional entrepreneurs used episodic framing via highlighting concussion victims' stories to mobilize supporters in coalition building. My analysis indicates that after hearing victims and their suffering families' tragic experiences, coalition members reacted with an outpouring of emotion and sympathy and expressed growing interest in joining the coalition to support the passage of concussion legislation. The emotion of sympathy, identified among coalition members, thus serves as a powerful motivator of action

and compels them to commit to the passage of new sport policies. This finding contributes to the understanding of the role of emotions that may be responsible for entrepreneurial action (Baron, 2008; Goss, 2008; Miller, Grimes, McMullen, & Vogus, 2012). Specifically, this finding sheds light on the role of a positive prosocial emotion—sympathy in encouraging entrepreneurial action. Prosocial emotions refer to the emotions aimed to “serve the well-being of a group” (Miller et al., 2012, p.617). In addition to these positive prosocial emotions (e.g., sympathy, compassion, gratitude), future studies can examine whether and how certain negative emotions (e.g., anger, guilt, shame) may be utilized to motivate institutional entrepreneurship?

Further, my findings show that to elicit support for the passage of new sport policies, institutional entrepreneurs used victim’s stories to generate emotional sympathy and compassion among state legislators. In particular, when retelling victims’ stories, institutional entrepreneurs stressed how these victims had suffered an underserved outcome and that the new concussion legislation can mitigate their suffering and prevent similar tragedies from happening again. My analysis suggests that state legislators reacted with strong emotions of sympathy for victims’ families and showed greater support for the passage of concussion legislation. These prosocial emotions may strengthen actors’ commitments and motivate broad and concerted efforts to promote the passage of new sport policies. This finding extends understanding of how institutional entrepreneurs could simulate certain type of emotions to mobilize support for the locus of change (Creed et al., 2010; Creed et al., 2014). This finding also provides a beginning for future sport management studies to incorporate emotions into the analyses of institutional change. Sport as a context often elicits diverse emotions such as happiness, excitement, or disappointment. Future sport management scholars can pay particular attention to theorize how emotions may arise and examine how these emotions could be leveraged to promote institutional



change, and investigate how institutional forces and emotional dynamics can reciprocally influence each other.

### **Role of Sport Organizations in Sport Policy Change**

This study expands understanding of how sport policy is created and adopted as a result of the collaboration between various sport organizations (e.g., professional sport organizations, youth sport governing bodies, athletic trainer associations), advocacy groups, academic institutions, and healthcare organizations. In particular, findings in this study advance prior literature on policy-making in the field of sport (Enjolras & Waldahl, 2007; Green & Houlihan, 2004; Hums & MacLean, 2017) by shedding light on the role of high-status, resource-rich sport organizations in the passage of new sport policies. Prior research in this field has investigated cases in sport policy-making in European countries (e.g., Enjolras & Waldahl, 2007; Skille, 2008) and Canada (e.g., Green & Houlihan, 2004) and focused on a pattern of cooperation between central national sport organizations/federations and the state (political systems, public administration). This line of work, however, does not take the role of professional and other non-profit sport organizations into account. My study shows that a diversified group of sport organizations, other than central national sport organizations, can participate collectively and collaboratively in sport policy making. In particular, my findings show that prominent sport organizations, such as professional sport teams, contributed to spreading information relevant to the policy to broader audiences, building connections, and enhancing credibility in the passage of a new sport policy. My findings align with work that suggests the celebrity status professional sport teams assume in the community allows them to be perceived as a favorable and trustworthy communicator of persuasive messages (Alexandar, Eavey, O'Brien, & Buendia, 2011; Diehl, 2007; Godfrey, 2009). Hence, advocacy activities sponsored by prominent sport organizations

could influence other organizations to join efforts. These insights move beyond describing how the government or national sport organizations are responsible for the establishment of new sport policies (Enjolras & Waldahl, 2007; Green & Houlihan, 2004; Hums & MacLean, 2017), by drawing attention to the role of professional sport organizations in using their status, resources and connections to promote the passage of new sport policy.

This study also contributes to prior research on the role of sport organizations in delivering socially responsible initiatives (Alexandar et al., 2011; Babiak & Wolfe, 2009; Diehl, 2007; Godfrey, 2009) by demonstrating the capacity of high-status sport organizations in advancing positive sport policy change. Prior research (Heinze & Lu, 2017) also suggests that the NFL was involved in youth concussion policy change in order to stave off public and governmental pressure in its handling of the concussion crisis within its own organization. Future scholars could continue to examine the factors that motivate professional sport organizations to become involved in sport policy change. A natural question raised by these findings is whether they generalize to other settings. This study focused on the passage of new sport policy in a field around an issue (concussion in sport). I expect the process and activities and tactics I identified will be similar for the creation of other policies in fields defined by issues. I address the practical implications, limitations and future directions in Chapter 5.

## **CHAPTER V**

### **Conclusions**

Institutional theory posits that organizations adopt new practices or policies to changing institutional environments (Dacin et al., 2002; Kostova & Roth, 2002; Scott, 2001). Previous sport management scholars examining institutional change in sport have documented the adoption of new organizational practices or structures, such as the enactment of Corporate Social Responsibility (CSR) practices in professional sports teams (Babiak & Trendafilova, 2011; Babiak & Wolfe, 2009; Godfrey, 2009) and the endorsement of professional bureaucratic structures across national sport organizations (Kikulis, 2000; Kikulis, Slack, & Hinings, 1995; Slack & Hinings, 1994). Much of this work tends to center on the isomorphism hypothesis (Cunningham & Ashley, 2001; Phelps & Kent, 2010; Washington & Patterson, 2011) and the ways in which broader field-level institutional pressures (e.g., coercive, mimetic, and normative) shape or constrain organizational behavior (Augestad, Bergsgard, & Hansen, 2006; Skille, 2009; Vos et al., 2011). Less attention is paid to institutional factors affecting variation in sport policy adoption across geographic boundaries and the role of agency in the change process.

This dissertation extends our understanding of institutional change around sport policy, corresponding variations in organizational responses, and the role of agency in institutional processes by investigating 1) the local community-level institutional factors on the varied rate of sport policy adoption across geographic boundaries (Chapter 3), and 2) the activities and tactics by which institutional entrepreneurs create and promote the passage of new sport policies

(Chapter 4). Empirically, I study these institutional dynamics in the context of the passage of youth sport concussion legislation across U.S. states (Chapter 2).

In Chapter 2, I presented a comprehensive review of background of my empirical context. First, I provide an historical overview of the extent of changes that have taken place in the organizational field around concussion in sports since the late 19<sup>th</sup> century. Specifically, I depicted how the field evolved along with the involvement of new organizations (e.g., SGBs, concussion advocacy groups, corporations, government entities) and individuals (e.g., scientists, active and retired athletes, coaches, media reporters), new technology (e.g., new helmets and protection gears) and knowledge (e.g., long-term effects of SRC and SIS), key stakeholders' changing responses (e.g., athletes showing greater concerns over the risks of concussions), and normative and regulatory changes (e.g., growing media attention and public awareness). I then focused on a substantial regulatory change—the nationwide concussion legislation change, on which Study 1 and Study 2 of this dissertation center. I identified related field conditions as potential precursors to this regulatory change, including increasing normative pressure around youth concussions, realization of limitation of concussion educational initiatives, and key youth concussion injury events. I further introduced background of key individuals and organizations involved in the passage of concussion legislation in Washington and Oregon.

In Chapter, 3, I conducted a quantitative event history analysis to examine the effects of local community-level institutional factors on the rate of sport policy adoption across geographic boundaries. In particular, I explored the influences of cultural (state norms), political (local advocacy), social (neighboring states), and triggering events (disruptive injury events) on concussion legislation adoption across states. These institutional factors were tested with a constructed database on the passage of concussion legislation between 2009 and 2014, which

includes state-level data such as a state's history of policy innovativeness (Boehmke & Skinner, 2012) and high-profile concussion injury events occurred within a state. My findings suggest that not all institutional factors indicated by prior work on institutional change are relevant to sport policy adoption. In particular, I found that broader cultural norms (e.g. around policy innovativeness) influenced concussion adoption timing, but narrower norms (e.g. around youth safety) were not significant. Most intra-state factors were significant, but inter-state social networks were not. My qualitative findings also add nuance to the results of my event history analysis: advocates or change agents leveraged triggering events in sport strategically to push change forward. These findings have implications for understanding of sport policy adoption within broader institutional change, as well as practical implications for change agents.

In Chapter 4, I conducted qualitative multi-case study of how institutional entrepreneurs advanced sport regulatory change. In particular, I unpacked the activities and tactics by which coalitions of individuals and organizations created and promoted the passage of concussion legislation in Washington and Oregon. I analyzed and triangulated across multiple data sources from my two cases, including firsthand and secondary interviews, archival documents (e.g., legislation history, coalition leaders' written columns, concussion legislation hearings), and news articles. My findings show that institutional entrepreneurs primarily engaged in three activities, political, technical, and cultural. I also identified a temporal order between these activities. Institutional entrepreneurs first engaged in political activity focused on constructing a broad-based coalition, using tactics including prioritizing recruitment for knowledge and legitimacy, diversifying membership, involving skeptics, and developing a shared vision. My findings suggest that these tactics contributed to the passage of concussion legislation via eliciting various expertise, skills and resources, enhancing credibility of new policy, reducing opposition, and

facilitating collaboration. Then, institutional entrepreneurs pursued technical activity centered on building a legislation template, using tactics including leveraging expertise, strategic compromise, and using neutral and inclusive language. My analysis suggests that these tactics facilitated the passage of concussion legislation via integrating updated knowledge, improving the chances of a successful passage, and reducing potential conflict. Further, my findings show that institutional entrepreneurs shifted to cultural activity and centered on framing and justifying the adoption of concussion legislation. Relevant tactics included episodic framing via highlighting a particular individual's story and embedding the issue in a broader value context. My analysis suggests that these tactics helped enhance emotional sympathy and expand support for the passage of concussion legislation. These findings reveal insight into the multifaceted nature and temporal dynamics within the process of institutional change in sport.

Together, my findings in Study 1 (Chapter 3) and Study 2 (Chapter 4) suggest that an organization's exposure to local institutional effects should be viewed as not only a source of pressures, but also a source of opportunities for sponsoring and promoting change. In other words, local institutional factors not only constrain or influence organizational behavior but also create agency opportunities for organizational actors. For instance, results in Study 1 demonstrate the effects of triggering injury events on policy adoption. Findings in Study 2 shows that institutional entrepreneurs leveraged these tragic events and stories in building coalitions and framing and justifying the adoption of new sport policies. Study 1 also shows that state norms influence policy adoption. Building on this point, I argue that when prompting change, institutional entrepreneurs should also pay attention to whether new policies or practices they sponsor align with local norms and culture. Collectively, Study 1 and Study 2 contribute to prior sport management studies focused on the constraining effects of institutional forces on

organizational processes (Berrett & Slack, 1999; Edwards et al., 2009; Silk & Amis, 2000), by shedding light on how institutional entrepreneurs can re-evaluate and capitalize on local institutional factors (e.g., disruptive events) to initiate institutional change.

This dissertation advances institutional studies in sport management in several ways. First, this dissertation contributes to the literature on institutional change in sport, focused on organizational conforming behavior to broader field-level institutional forces (O'Brien & Slack, 2004; Sotiriadou & Wicker, 2013; Washington & Ventresca, 2004), by illuminating the influences of local and immediate institutional factors (Marquis et al., 2007; Marquis et al., 2011) on variations in sport policy adoption across geographic boundaries. Second, this dissertation extends understanding on the role of agency in institutional change in sport (Amis et al., 2002; Kikulis et al., 1995; Heinze & Lu, 2017; Stevens & Slack, 1998) by elucidating the specific activities and tactics institutional entrepreneurs engaged in to promote sport regulatory change. Third, by showing that the various activities and tactics institutional entrepreneurs engaged in shifted in a temporal order, this dissertation provides insight into the multifaceted nature and temporal dynamics within the process of institutional change in sport. Further, this dissertation adds to the growing understanding in organizational institutionalism on constraining and enabling institutional effects (Marano & Kostova, 2016; Saka-Helmhout & Geppert, 2011) by shedding light on how institutional entrepreneurs can leverage these institutional factors to sponsor change in organizational fields.

### **Practical Implications**

This dissertation offers several practical implications. Given the size of the sport industry, and high visibility of and interest around sport, disruptive events abound (e.g. the FIFA

corruption crisis in 2015, the recent USA Gymnastics sex abuse scandal). Study 1 of this dissertation (Chapter 3) suggests that these events can spur greater attention to existing problems, bring influential actors into the field, and open windows for policy and practice change. Practitioners and policy makers can also leverage these events to fulfill their political or legislative agendas, and initiate broader social change. Change agents might generate social support and help mobilize activists through collaborating with media outlets and creating special interest stories that amplify attention around events. These findings also indicate that when promoting the passage of a new sport policy or practice, policy makers and advocates can exploit pre-existing cultural norms and conventions within a state. Agents should frame change in terms of alignment with existing values, practices, and policies, and invoke state history or precedent, to drive adoption.

Study 2 of this dissertation (Chapter 4) provides actionable strategies and tactics that entrepreneurs, policy makers, and practitioners could use to promote the passage of new sport policies. For instance, findings in Study 2 suggests that building a broad-based coalition composed of individuals and organizations across diverse fields contribute to integrating various expertise, resources, and skill sets in the passage of a new sport policy. Inviting high-status and resource-rich sports organizations on board also contributes to enhancing credibility and legitimacy in the policy-making process. Framing and embedding the new sport policy within a broader value context also facilitates to widening support and make the issue appealing to wider audiences. I expect the tactics derived from Study 2 could be generalized to the other sports safety contexts in developing new sport policies. In recent years, some other important sports safety concerns that may entail policy change include issues around sudden cardiac arrest (SCA), catastrophic neck injuries, exertional heat stroke (EHS), exertional sickling, and environmental



issues such as lighting and access to medical services (Adams, Casa, & Drezner, 2016). For instance, interest in injuries suffered by youth athletes due to EHS was heightened in recent years as a result of several fatal incidents (Armstrong et al., 2007; Casa, Armstrong, Kenny, O'Connor, & Huggins, 2012). Research also suggests that the implementation of effective sport safety policies such as heat-acclimatization policies contributes to decreasing risks and dangers for kids during sport participation (Casa et al., 2012). From an applied point of view, practitioners and policy makers can accomplish relevant sport policy changes to reduce injuries and fatal incidents in EHS using tactics I developed from Study 2. Policy makers or managers should also be aware of the multifaceted nature and temporal dynamics of promoting the passage of new sport policies related to building teams and mobilizing support, developing policy template, and framing the legitimacy of its adoption.

### **Limitations and Future Directions**

This dissertation includes limitations and boundaries that can be addressed with future work. In Study 1 (Chapter 3), I operationalize the variable—local advocacy based on financial contributions and equate that with resources. While finances are important, human capital resources are relevant and are reflected more in my qualitative findings around advocacy in early adopter states. I was not able to collect data on individuals and organizations involved in the passage of concussion legislation for all 48 contiguous states. Future research should directly test the effect of institutional entrepreneurship or human capital resources in state policy adoption. Second, regarding the variable—disruptive events, I monitored two leading national news outlets (the *NYT* and the *SI*) and coded the presence of high-profile, serious youth sport concussion incidents in local states. Future scholars may use Factiva's global news database, which covers

more newspapers, magazines and reports in the world, to identify the presence and/or number of disruptive events in specified geographic regions. Further, since Study 1 focused on the influence of institutional factors in U.S. state policy adoption, it would be important to replicate it with non-US states for purpose of generalizability. Future research could explore whether my findings extend to other geographic boundaries relevant for sport policy adoption, such as provinces or cities.

One limitation of Study 2 is the ability of the participants to accurately recall the event, given that the passage of concussion legislation took place 10 years ago. To address this limitation, I triangulated across multiple data sources, including firsthand and secondary interviews and archival documents. Study 2 of this dissertation could also be strengthened by including firsthand interviews with state legislators. Such data would reveal more insights into the effectiveness of tactics institutional entrepreneurs have used. In addition, in Study 2, I centered on unpacking the activities and tactics innovators (institutional entrepreneurs in Washington and Oregon) have used in the passage of new sport policies. Relevant tactics and processes may look different for different types of adopters. I was constrained by data collection limitations in tracing the entire concussion legislation diffusion process. Future scholars could gather more data in the policy diffusion stage and compare the tactics and processes between innovators and laggards (Rogers, 2003).

Further, in the context around concussion in sports, there is a relatively higher degree of urgency and little resistance for sport policy change due to the growing public awareness of the long-term health effects of concussions and numerous serious, high-profile injury events. Future research could explore whether tactics and processes derived from Study 2 are still applicable to other sports contexts (e.g., safe youth football acts) in which there is a lower degree of urgency

and more resistance for sport policy change. For instance, in recent years, in response to the dangers and growing concerns of repeated brain injuries on younger generation, some state legislators (e.g., New York, California, Maryland) introduced Youth Football Protection Acts that would ban tackle football for children under 12 years old or before high school. These bills, if enacted, would prevent youth sports governing bodies, leagues, and schools from offering tackle football for younger kids. However, these bills met with much resistance from athletes, parents and coaches, who complained football was “being unfairly singled out” (Woolfolk, 2018, para. 2). Future scholars could investigate what the processes and tactics in promoting the passage of new sport policies may look like when there is resistance.

Building on insights developed in this dissertation, I note a few more possible future research avenues. Study 1 suggests the effects of local institutional factors on organizational adoption of new sport policies. Future research can expand on this finding and continue to explore the nature of local, community-level institutional factors supporting or impeding sport practice or policy adoption in other contexts, such as the adoption of green management or CSR practices in sport organizations and the enactment of diversity practices in collegiate athletic departments. Specific community-level institutional factors that could be examined include local traditions or culture (Molotch, Freudenburg, & Paulsen, 2000), local policies or regulations (Tilcsik, 2011), and community values or ideology (Wade-Benzoni et al., 2002).

Study 2 also sheds light on the emotional aspect of institutional processes in sport. Future research should incorporate emotions into the analyses of institutional change in a more systematic manner. For instance, future scholars could study the mechanisms that transform certain emotions (e.g., sympathy, compassion, anger) into institutional entrepreneurship and the role that emotions play in conditioning institutional entrepreneurship. Future studies could also

account how certain emotions influence the way institutional entrepreneurs think and commit to institutional change.

Future research is also needed to study the consequences of institutional change around sport policy. The new concussion legislation provides latitude for local sport organizations, including state-level athletic associations, to develop specific concussion practices (Tomei, Doe, Prestigiacomo, & Gandhi, 2012). In the face of field-level pressure from new regulatory changes, local organizations need to make corresponding adjustments (Edelman, 1992; Westphal et al., 1997; Slack & Hinings, 1994). This process may generate variation, as organizations address new legislation and other field-level changes differently (Slack & Hinings, 1994; Heinze, Soderstrom, & Heinze, 2016). Early evidence shows that some state-level athletic associations are more conservative, in that they make few local extensions to field regulations; while others are more innovative: they go beyond what is regulated, including introducing new, local practices to address concussions (Kodeih & Greenwood, 2014). Future research could examine what causes variation in organizational responses to institutional change around sport policy.

## **APPENDICES**

### **Appendix A. Interview Guide**

#### **1. Coalition features**

- a. How is this idea to work toward policy and legislation been made?
- b. Who are the key organizations and individuals involved in the coalition?
- c. What motivate you and your organization to be on board?
- d. How did you get this diverse group of organizations on board? Was the approach different among these partners?
- e. How was the communication between these partners? How often do they meet? Where do you meet? Is there any meeting minutes?
- f. What role do they play? What resources do they bring to this process?
- g. Among these partners, is there any organization or person that played an essential leadership role?

#### **2. Process**

- a. How is the decision around which word to use in the law been made?
- b. What role do you play in building the legislation template/legislation writing?
- c. Was there any tension that stood out during this process? If so, how do you manage to overcome this tension?
- d. When you look back at the passage of the concussion legislation, how do you evaluate the outcomes of this legislative campaign? What were the greatest successes? Any challenges?

#### **3. Others**

- a. Are there any other issues with respect to this sport policy change that we have not discussed and that you think are important? What has been most surprising?
- b. Are you willing to allow me to follow-up with additional clarification questions if they arise?
- c. Is there anyone else I should speak with (at your organization or others)?
- d. Are you willing to share any organizational documentation on concussion policies and practices that is not available online?

- e. How do you evaluate professional sport team/organization's involvement in getting the legislation passed?

## Appendix B. Additional Qualitative Data

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### Political: Constructing a coalition

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#### Prioritizing recruitment for knowledge and legitimacy

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<p>“For me, working with Dr. Ross is very important because he is a very important knowledge influencer. He is also interested in the case as well. ... At that time, Dr. Ross was in primary practice at trauma one center. He is also a team physician for Seahawks.” (Washington coalition representative, first-hand interview)</p>	<p>“The essential role really came from Dr. Ross and Mr. Brown’s leadership, and their drive to get this passed.” (Washington coalition representative, first-hand interview)</p>	<p>“It’s like threading the needle. You want to thread them in an order. It’s like before you build a tower, you have to build a solid structure. Then we just continue to add new people.” (Washington coalition representative, first-hand interview)</p>
<p>“Having the Seahawks on board and its community outreach allowed all of us to bring our different pieces together, ... and is instrumental in getting the appropriately worded educational information out for parents, athletes, coaches, and schools.” (Washington coalition representative, first-hand interview)</p>	<p>“I would think the leadership provided by the WIAA was essential, absolutely essential. ... They are in the business of making rules and regulations about middle school and high school athletics. And without their support, leadership and the contribution, the law would never get off the ground.” (Washington coalition representative, first-hand interview)</p>	<p>“There is WIAA contact in every town in this state. ... So there is a lot of clout, a lot of power, and being able to reach out. Everybody knew who the WIAA is and what they do. So bringing the association to the table brought with it substantial support for anything that was going to happen.” (Washington coalition representative, first-hand interview)</p>

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#### Diversifying membership

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<p>“In our state, we have a very diverse coalition of people from state legislators to athletic trainers, which by the way are key part of this process.” (Washington coalition representative, first-hand interview)</p>	<p>“It was a great task force because when we didn’t know what happened to a child after he or she is concussed, Dr. Ross would come in and help us with that. Or unfortunately what would happen if that child suffered a lifelong injury like Zack did, what was the litigation that was when Mr. Brown came in. Another important org is</p>	<p>“The reason that it’s important for a youth sport organization became involved is because ultimately if they passed legislations, the message has to get out to the community. The law was a little bit useless unless you have youth sport organizations to drive that process. ... So our message as the youth sport</p>
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	<p>WIAA. We talked to Tom (pseudonym, representative of WIAA). Tom was very instrumental because we can get all of this accomplished in the club (we called it club sports). But how can we get this accomplished in public high schools. That was the next thing that Tom helped with that. He was instrumental in getting education in public institutions." (Washington coalition representative, first-hand interview)</p>	<p>organization was because we controlled 135,000 kids playing sports on public field. I thought we had a strong method to do that." (Washington coalition representative, first-hand interview)</p>
<p>"To pass a law like this can't be one person. It can't be one organization. It has to be a wide ranging support of many organizations." (Washington coalition representative, first-hand interview)</p>	<p>"When Dr. Ross and Mr. Brown started putting together this group, they felt that athletic trainers were some of the key members because we're on the sideline, we're directly involved, that's one of our direct key injuries that we are there to recognize, evaluate, and treat and help manage and Dr. Ross viewed us as one of the experts in that process, and we are employed in the secondary schools so they felt that was very important to have the athletic trainers involved in the legislative process so they brought us on early as part of the coalition." (Washington coalition representative, first-hand interview)</p>	<p>"When you go to pass the legislation, you can't just go as one organization. You have to bring your coalition partners in. ... One by one they started to develop and come. ... Many partners went into the efforts and presentation in Olympia to pass the law." (Washington coalition representative, public interview)</p>
<p>"We had an incredibly great team all working in conjunction toward this common goal. ... It was just a phenomenal team all at the right place at the right time working on this process." (Oregon coalition representative, first-hand interview)</p>		
<hr/> <p><b>Involving skeptics</b></p> <hr/>		



“They are an independent group. ... So I think they were weary of legislators telling them what to do around concussion. Again, that’s why we want to bring them in, and make sure that they were comfortable with how we were structuring legislations that they felt like they could be partners.” (Washington coalition representative, first-hand interview)

“Helmets aren’t for the purpose of preventing concussion in football. Helmets are for the purpose of preventing skull fractures. That’s why it was brought in. People no longer get skull fractures. But people die from serious head injuries. We have no data that one helmet is better than the other. We certainly feel that a new and properly fit helmet is much better than an old helmet. We are never gonna have a helmet design that is gonna prevent concussions in football. Special helmets, mouth guard. ... We don’t have any proof to show any preventions as far as preventing head injuries.” (Oregon coalition representative, Oregon concussion legislation hearing)

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**Technical: Building the legislation template**  
**Leveraging expertise**

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“Athletic trainers were some of the key members because we’re on the sideline, we’re directly involved, that’s one of our direct key injuries that we are there to recognize, evaluate, and treat and help manage and Dr. Ross viewed us as one of the experts in that process, ... and then with the way the legislation was written, it also allowed for the term “licensed health care provider trained in management and evaluation of concussion” to include certified athletic trainers because we were licensed health care providers in the state of Washington.” (Washington coalition representative, first-hand interview)

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**Strategic compromise**

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“Then reality hit us in the face and we said we can only bite off so much. So we said that basically for political purposes we cannot try to get this sweeping law that tries to cover all young athletes in the state, we have to pair it down, we have to trim it down, we cannot be so ambitious because if we tried to be too ambitious we would lose, and if we lost even though our intentions were everything, that would set us back probably forever. For political reasons we said we had to narrow it down.”

“A key question that comes up during the legislated process is how much is this going to cost? We said that one dollar directly. It’s revenue neutral. ... To be able to look at the legislator in the face and say this will not cost anything. This will prevent injuries. This will make youth sports safer. When you talk that way to the legislators, they say come on in and have some coffee. When you say this will gonna cost money, they say schedule an appointment and you will never get into talking

“We did have to compromise a little bit. We wanted initially to have every young and yet every youth sport or whether it was related with the school or not covered by max's law that was a political practicality for something throughout the entire country. So we compromised this to athletic teams.” (Oregon coalition representative, public interview)

(Oregon coalition representative, first-hand interview)	to anybody about anything.” (Washington coalition representative, first-hand interview)
“It had a section that would require school districts to replace helmets as needed, but that was taken out for fear of a fiscal that may derail the bill.” (Oregon coalition representative, Oregon concussion legislation hearing)	“As far as implementation goes, legislation is a negotiated process. Since we were the first state, we realized early on that if we ask too much we wouldn’t get anything. That’s how legislation works. For example, I’d love to have to mandate that each school district has hired a trainer, but not each school has funds for that. I’d love to mandate a robust requirement for education program for kids, but there are no resources for that. So we learn early in our efforts that if the law was not revenue-neutral, it didn’t have much chance to pass.” (Washington coalition representative, first-hand interview)

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### Using neutral and inclusive language

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“The law avoided specifying the physician as the sole expert capable of clearing a youth athlete to return to play. The term ‘licensed health care provider trained in the evaluation and management of concussion’ was quite advantageous because it broadened the expert qualifications in a state in which rural constituencies are prevalent. It avoided the debate that occurs when one assigns the duties to a specific medical personnel category	“We didn’t say doctor. We didn’t say any particular scope of practice. ... The legislative process is about who is in and who is not. Besides we’ve got wonderful rule making body with the WIAA. They are the governing body. Let them decide who is qualified.” (Washington coalition representative, first-hand interview)	“We wanted to make it broad enough on healthcare providers. Because we knew if we only said physicians..., we would alienate other groups that was gonna cause a fight in Olympias. So we made it a broad but then let to the WIAA and rule making, and a more microscopic level to delineate who they would consider the appropriate providers for check-off purposes. So you know part of it was also figuring out how to navigate the
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over another.” (Ellenbogen, 2014, p.5126)

legislative process to make sure we didn’t run into. That’s where we, you know, broaden it to include healthcare providers that sends a route later in the process that we could be more specific about who we thought would be appropriate to clear persons.” (Washington coalition representative, first-hand interview)

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### **Cultural: Framing and Justifying the Adoption of Concussion Legislation**

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#### **Episodic framing-Highlighting a particular individual’s story**

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“On Oct 12, 2006, a 13-year-old child played football for his school team. This is a kid who is a great football player on both sides of the ball. But he was good not just on the field but also off the field. He has a 3.5 GPA while he is a good player all around. It was right in the second half, it was very clear that he had hurt himself. An important thing in terms of the fact in that situation is that there is no loss of consciousness for Zack. He fell to the ground after the play. Zack after a few minutes was able to get up and walk off by himself. He was kept off in the next couple of plays until the end of the first half. It was about 10, 12, 15 minutes of halftime. On the very first play of the third quarter, he was returned to the game. He played the third quarter and the fourth quarter. Minutes after the game, he collapsed on the field. He was airlifted

“I have a dream. It was voices. Yes I can. I will walk. Sometime I will do it. I will talk. Thank you.” (Zackery, Washington concussion legislation hearing)

"I think Zack himself at the face of this issue, being able to come down and testify after the hearing in the House. You know he actually stood up for the first time, you know was able to stand up from his wheelchair. That was a huge milestone. He subsequently got on to walk...A personal story that can be told as very moving." (Washington coalition representative, first-hand interview)

to Harborview. They performed life-saving emergency brain surgery twice at a period of ten hours. He survived.” (Washington coalition representative, Washington concussion legislation hearing)

“I have been waiting for this day for seven years. The story is very simply that when the rest of the country was suffering in 911 attacks, my whole world collapsed when my son collapsed on the sideline of a high school football game and slipped into a four month comma. While he was clinging life, we just think this was just a freak accident. We really didn’t know what. But since we spent that four months basically living it immanuel, I started to go online and do some research. ... The most shocking thing for us is that Max suffered a concussion in the week before. He was playing with a concussion that does not have a chance to heal when he suffered a fairly light blow to the head. It is not a hard hit. But it causes second impact syndrome.” (Max’s father’s testimony, Oregon Senate Hearing)

“It was the story, it was absolutely the story. And it was the fact that Max and Ralph Conrad were willing to be the face of change. They were willing to stand up to decades and decades of neglect of ignorance of willful ignorance with regard to concussions. Max was not the first kid who suffered second impact syndrome. Max was not the first person whose life story lent itself to the requirement for a Max’s law, but they were the first one’s that stood up and did it. And I’ll throw into the equation, very coincidentally, Zach’s parents up in Washington did the same thing. So I think the most compelling, biggest lesson out of that, is that a great societal problem was solved, to the extent that it was actually solved, because a dad would not let it go. Because Ralph Conrad would not just step aside and let the world go by. He said, he didn’t have any of the skills to do this. He didn’t have any legislative/legal/medical expertise. He just knew that he had to keep shouting from the mountain top, “something must be done.” He didn’t know what, that was up to us. But he knew why it had to happen and that was because his son suffered tremendous, horrible, injustice in this injury and he was determined that Max’s story would not be in vain. That something would change as a result. So I want to throw the important lesson out in all of this, I actually use this example when I give these talks, especially to school boards and educators. One person can make a huge difference.” (Oregon coalition representative, Oregon coalition representative)

“We had incredible testimony by Max Conrad. ... We had a great episode that happened with Max. This one probably won’t be registered anywhere except in this conversation. On the senate panel was a

“Max was gracious enough to accept. He came there, he told his story, and by being there, I think he really helped bring to the floor, the idea that second impact syndrome is something we cannot take

“As many of you know, Zackery is an inspiration for all of us. He is a student athlete. He is full of drive and full of determination like many of our youth. He suffered a very serious

senator, and Max was in the room and after the hearing, Senator said we passed this, I believe it was unanimous, out of the senate committee and we send it to the floor of the senate with a due pass resolution, which is exactly what we wanted. Right after she said that, it's normally a very conservative environment, which is a committee room down in the state capitol, Max jumped up out of his seat and he yells, "Go Gelxer, go Gelxer, go Gelxer," and it was the cutest most awesome thing in the world, seeing Max just overcome with emotion overcome with joy, that this bill that had his name was going to get passed." (Oregon coalition representative, first-hand interview)

lightly, it's extremely serious, and I think Max needs to be congratulated on his willingness to stand out there and be kind of the public face for concussion prevention in the state of Oregon." (Oregon coalition representative, Oregon hearing)

concussion, but no one saw the signs just how dramatic his injury was. So what happened what too often, because Zack was really determined to get back in. His conditions worsened. So later in the game, he collapsed, and on the field he found himself with life-threatening injury. We are lucky to have Zack alive today. It was that same drive, that same determination, and that same spirit, along with amazing care health care, that allowed him to succeed after he got off the field, and allowed his work and his family to turn that tragedy into triumph. They have worked tirelessly to make the awareness of what happened to Zack, in this state and in this nation." (Washington governor, Concussion legislation summit, 2010)

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### **Embedding the issue in a broader value context**

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"This is not a football problem. It's a sports problem. 10% of injuries in soccer, for example, are concussion injuries. So this is not just a football problem." (Washington coalition representative, Washington concussion legislation hearing)

"When in doubt, sit them out. If you do that as we all sit here, next year and year after, we will be saving lives and making sport safer. I am a big fan of sport. To make sport safer and have all the positive sides while doing something so fundamentally simple that can prevent the down sides seems to me to be a laudable goal." (Washington coalition representative, Washington concussion legislation hearing)

"What it will do will send a clear message to the rest of the country that this is an issue that we need to work it on as a community together, not only school sports, but youth sports." (Washington coalition representative, Washington concussion legislation hearing)

“Being a large private organization, we strongly support this legislation. We can affect one life, much less a hundred lives behind this.” (Washington coalition representative, Washington concussion legislation hearing)

“Zack’s message from our family needs to be loud and clear is that we have the ability to change people’s lives. Zack is exceptional. (Zack said he is monumental.) Zack’s purpose in his life now is to change other people’s lives. That takes all of you to make a law, to help other people get through this in their lives. They don’t have to get through this.” (Zack’s father’s testimony, Washington concussion legislation hearing)

"When we started the dialogue, basically, I think that was the game change for the state, because it changed the focus from just being about school sports to the entire spectrum of youth sports, club sports as well as school sports." (Washington coalition representative, first-hand interview)

"This is not just a football problem, but a problem in all sports." (Staff summary of public testimony from Washington House Bill Report)

"It’s clear to us that concussion is not a football issue, not a boy issue. It’s a youth sport issue. We want to try to have its broad reach as possible." (Washington coalition representative, first-hand interview)

## BIBLIOGRAPHY

- Aarts, H., Verplanken, B., & Knippenberg, A. (1998). Predicting behavior from actions in the past: Repeated decision making or a matter of habit? *Journal of Applied Social Psychology*, 28(15), 1355-1374. doi: 10.1111/j.1559-1816.1998.tb01681.x.
- Adams, W. M., Casa, D. J., & Drezner, J. A. (2016). Sport safety policy changes: saving lives and protecting athletes. *Journal of Athletic Training*, 51(4), 358-360. doi: 10.4085/1062-6050-51.4.14.
- Adler, R. H., & Herring, S. A. (2011). Changing the culture of concussion: education meets legislation. *PM&R*, 3(10), S468-S470.
- Albano Jr, A. W., Senter, C., Adler, R. H., Herring, S. A., & Asif, I. M. (2016). The legal landscape of concussion: implications for sports medicine providers. *Sports Health*, 8(5), 465-468.
- Alexandar, L., Eavey, L., O'Brien, K., & Buendia, M.T. (2011, July). Sports teams and social impact: An analysis of recent developments and best practices. Retrieved from [http://www.wharton.upenn.edu/socialimpact/files/Social\\_Impact\\_of\\_Sports\\_Report\\_Final.pdf](http://www.wharton.upenn.edu/socialimpact/files/Social_Impact_of_Sports_Report_Final.pdf)
- Amdur, N. (1968, March 22). Football to try hydraulic helmet. *New York Times*. Retrieved from: <https://www.nytimes.com/1968/03/22/archives/football-to-try-hydraulic-helmet-florida-team-to-test-new-safety.html>
- Amis, J., Slack, T., & Hinings, C. R. (2002). Values and organizational change. *The Journal of Applied Behavioral Science*, 38(4), 436-465. doi: 10.1177/002188602237791.
- Amis, J., Slack, T., & Hinings, C. R. (2004). The pace, sequence, and linearity of radical change. *Academy of Management Journal*, 47(1), 15-39. doi: 10.5465/20159558.
- Anderson, D. J., Cheslock, J. J., & Ehrenberg, R. G. (2006). Gender equity in intercollegiate athletics: Determinants of Title IX compliance. *The Journal of Higher Education*, 77(2), 225-250. doi: 10.1080/00221546.2006.11778925.

- Armstrong, L. E., Casa, D. J., Millard-Stafford, M., Moran, D. S., Pyne, S. W., & Roberts, W. O. (2007). Exertional heat illness during training and competition. *Medicine & Science in Sports & Exercise*, 39(3), 556-572. doi: 10.1249/MSS.0b013e31802fa199.
- Aubry, M., Cantu, R., Dvorak, J., Graf-Baumann, T., Johnston, K., Kelly, J., Lovell, M., McCrory, P., Meeuwisse, W., & Schamasch, P. (2002). Summary and agreement statement of the first International Conference on Concussion in Sport, Vienna 2001. *The Physician and Sportsmedicine*, 30(2), 57-63. doi: 10.1136/bjsm.36.1.6.
- Augestad, P., Bergsgard, N. A., & Hansen, A. Ø. (2006). The institutionalization of an elite sport organization in Norway: The case of "Olympiatoppen". *Sociology of Sport Journal*, 23(3), 293-313. doi: 10.1123/ssj.23.3.293.
- Babiak, K., & Trendafilova, S. (2011). CSR and environmental responsibility: motives and pressures to adopt green management practices. *Corporate social responsibility and environmental management*, 18(1), 11-24. doi: 10.1002/csr.229.
- Babiak, K., & Wolfe, R. (2009). Determinants of corporate social responsibility in professional sport: Internal and external factors. *Journal of Sport Management*, 23(6), 717-742. doi: 10.1123/jsm.23.6.717.
- Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization Studies*, 18(1), 93-117. doi: 10.1177/017084069701800106.
- Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33(2), 328-340. doi: 10.5465/amr.2008.31193166.
- Battilana, J., & Dorado, S. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal*, 53(6), 1419-1440. doi: 10.5465/amj.2010.57318391.
- Battilana, J., Leca, B., & Boxenbaum, E. (2009). 2 how actors change institutions: towards a theory of institutional entrepreneurship. *Academy of Management Annals*, 3(1), 65-107. doi: 10.5465/19416520903053598.
- Battista, J. (2013, February 2). NFL joins with G.E, in effort to detect concussions. *New York Times*. Retrieved from: <https://www.nytimes.com/2013/02/03/sports/football/nfl-and-ge-team-up-in-effort-to-detect-concussions.html>



- Beckert, J. (1999). Agency, entrepreneurs, and institutional change. The role of strategic choice and institutionalized practices in organizations. *Organization Studies*, 20(5), 777-799. doi: 10.1177/0170840699205004.
- Beckert, J. (2010). How do fields change? The interrelations of institutions, networks, and cognition in the dynamics of markets. *Organization Studies*, 31(5), 605-627.
- Béland, D. (2007). Ideas and institutional change in social security: Conversion, layering, and policy drift. *Social Science Quarterly*, 88(1), 20-38. doi: 10.1111/j.1540-6237.2007.00444.x.
- Bell, D. R., Guskiewicz, K. M., Clark, M. A., & Padua, D. A. (2011). Systematic review of the balance error scoring system. *Sports Health*, 3(3), 287-295. doi: 10.1177/1941738111403122.
- Belson, K. (2014, August 25). Disciplined for four games, Broncos kicker apologizes. *New York Times*. Retrieved from: <https://www.nytimes.com/2014/08/26/sports/football/nfl-roundup.html>
- Bennett, D. R., Fuenning, S. I., Sullivan, G., & Weber, J. (1980). Migraine precipitated by head trauma in athletes. *The American Journal of Sports Medicine*, 8(3), 202-205. doi: 10.1177/036354658000800312.
- Bennett, C. J., & Howlett, M. (1992). The lessons of learning: Reconciling theories of policy learning and policy change. *Policy Sciences*, 25(3), 275-294. doi: 10.1007/BF00138786.
- Berrett, T., & Slack, T. (1999). An analysis of the influence of competitive and institutional pressures on corporate sponsorship decisions. *Journal of Sport Management*, 13(2), 114-138. doi: 10.1123/jsm.13.2.114.
- Berry, F. S., & Berry, W. D. (1990). State lottery adoptions as policy innovations: An event history analysis. *American Political Science Review*, 84(2), 395-415. doi: 10.2307/1963526.
- Boehmke, F. J., & Skinner, P. (2012). State policy innovativeness revisited. *State Politics & Policy Quarterly*, 12(3), 303-329. doi: 10.1177/1532440012438890.
- Borucka, J. (2014). Methods for handling tied events in the Cox proportional hazard model. *Studia Oeconomica Posnaniensia*, 2(2), 91-106.

- Botzem, S., & Quack, S. (2005). Contested rules and shifting boundaries: International standard-setting in accounting. *Discussion Papers, Research Unit: Internationalization and Organization*. doi: 10.1017/CBO9780511488665.014
- Bowen, A. P. (2003). Second impact syndrome: a rare, catastrophic, preventable complication of concussion in young athletes. *Journal of Emergency Nursing*, 29(3), 287-289. doi: 10.1067/men.2003.90.
- Box-Steffensmeier, J. M., & Jones, B. S. (2004). *Event history modeling: A guide for social scientists*. Cambridge, UK: Cambridge University Press.
- Bradish, C., & Cronin, J. J. (2009). Corporate social responsibility in sport. *Journal of Sport Management*, 23(6), 691-697. doi: 10.1123/jsm.23.6.691.
- Briscoe, F., & Safford, S. (2008). The Nixon-in-China effect: Activism, imitation, and the institutionalization of contentious practices. *Administrative Science Quarterly*, 53(3), 460-491. doi: 10.2189/asqu.53.3.460
- Broglio, S. P., Sosnoff, J. J., Shin, S., He, X., Alcaraz, C., & Zimmerman, J. (2009). Head impacts during high school football: a biomechanical assessment. *Journal of Athletic Training*, 44(4), 342-349. doi: 10.4085/1062-6050-44.4.342.
- Broglio, S. P., Eckner, J. T., Paulson, H. L., & Kutcher, J. S. (2012). Cognitive decline and aging: the role of concussive and subconcussive impacts. *Exercise and Sport Sciences Reviews*, 40(3), 138-144. doi: 10.1097/JES.0b013e3182524273
- Broglio, S. P., Cantu, R. C., Gioia, G. A., Guskiewicz, K. M., Kutcher, J., Palm, M., & McLeod, T. C. V. (2014). National Athletic Trainers' Association position statement: management of sport concussion. *Journal of Athletic Training*, 49(2), 245-265. doi: 10.4085/1062-6050-49.1.07.
- Bronco is fined (1988, September 25). *New York Times*. Retrieved from: <https://www.nytimes.com/1988/09/25/sports/sports-people-bronco-is-fined.html>
- Brown, A. D., Ainsworth, S., & Grant, D. (2012). The rhetoric of institutional change. *Organization Studies*, 33(3), 297-321. doi: 10.1177/0170840611435598.
- Brown, H. S., De Jong, M., & Lessidrenska, T. (2009). The rise of the Global Reporting Initiative: a case of institutional entrepreneurship. *Environmental Politics*, 18(2), 182-200. doi: 10.1080/09644010802682551.

- Budinger, T. F. (2016). An overview of concussion: history and needed research. *Bridge Natl Acad Eng*, 46, 5-22.
- Buhr, K. (2012). The inclusion of aviation in the EU emissions trading scheme: Temporal conditions for institutional entrepreneurship. *Organization Studies*, 33(11), 1565-1587. doi: 10.1177/0170840612463324.
- Burt, R. S. (1987). Social contagion and innovation: Cohesion versus structural equivalence. *American Journal of Sociology*, 92(6), 1287-1335. doi: 10.2307/3069289.
- Buzzini, S. R. R., & Guskiewicz, K. M. (2006). Sport-related concussion in the young athlete. *Current Opinion in Pediatrics*, 18(4), 376-382. doi: 10.1097/01.mop.0000236385.26284.ec.
- Calvin, N., Abiodun, I., & Marvin, W. (2018). The evolving institutional work of the National Collegiate Athletic Association to maintain dominance in a fragmented field. *Sport Management Review*. doi: 10.1016/j.smr.2018.05.002.
- Cantu, R. C. (1986). Guidelines for return to contact sports after a cerebral concussion. *The Physician and Sportsmedicine*, 14(10), 75-83. doi: 10.1080/00913847.1986.11709197.
- Cantu, R. C. (1998). Second-impact syndrome. *Clinics in Sports Medicine*, 17(1), 37-44.
- Cantu, R. C., & Hyman, M. (2013). *Concussion and our kids: America's leading expert on how to protect young athletes and keep sports safe*. Wilmington, MA: Houghton Mifflin Harcourt.
- Carney, M., & Gedajlovic, E. (2002). The co-evolution of institutional environments and organizational strategies: The rise of family business groups in the ASEAN region. *Organization Studies*, 23(1), 1-29. doi: 10.1177/0170840602231001.
- Carson, R. (1962). *Silent spring*. Boston: Houghton Mifflin.
- Casa, D. J., Armstrong, L. E., Kenny, G. P., O'Connor, F. G., & Huggins, R. A. (2012). Exertional heat stroke: new concepts regarding cause and care. *Current Sports Medicine Reports*, 11(3), 115-123. doi: 10.1249/JSR.0b013e31825615cc.
- Centers for Disease Control and Prevention. (2010). Facts about concussion and brain injury. Retrieved from [https://www.cdc.gov/headsup/pdfs/providers/facts\\_about\\_concussion\\_tbi-a.pdf](https://www.cdc.gov/headsup/pdfs/providers/facts_about_concussion_tbi-a.pdf)

- Change the football rules (1893, December 3), *New York Times*, Retrieved from: <https://www.nytimes.com/1893/12/02/archives/change-the-football-rules-the-rugby-game-as-played-now-is-a.html>
- Charmaz, K. (2004). Premises, principles, and practices in qualitative research: Revisiting the foundations. *Qualitative Health Research*, 14(7), 976-993. doi: 10.1177/1049732304266795.
- Colvin, A. C., Mullen, J., Lovell, M. R., Vereeke West, R., Collins, M. W., & Groh, M. (2009). The role of concussion history and gender in recovery from soccer-related concussion. *The American Journal of Sports Medicine*, 37(9), 1699-1704. doi: 10.1177/0363546509332497.
- Child, J., Lu, Y., & Tsai, T. (2007). Institutional entrepreneurship in building an environmental protection system for the People's Republic of China. *Organization Studies*, 28(7), 1013-1034. doi: 10.1177/0170840607078112.
- Clark, M., & Guskiewicz, K. (2016). Sport-related traumatic brain injury. In D. Laskowitz & G. Grant (Eds.), *Translational research in traumatic brain injury* (17-39). Boca Raton, FL: CRC Press.
- Coaches propose safety study to reduce football fatalities (1961, October 13). *New York Times*. Retrieved from: <https://www.nytimes.com/1961/10/13/archives/coaches-propose-safety-study-to-reduce-football-fatalities-head-of.html>
- Colomy, P. (1998, June). Neofunctionalism and neoinstitutionalism: Human agency and interest in institutional change. *Sociological Forum*, 13(2), 265–300.
- Comeau, G. S., & Church, A. G. (2010). A comparative analysis of women's sport advocacy groups in Canada and the United States. *Journal of Sport and Social Issues*, 34(4), 457-474. doi: 10.1177/0193723510387053.
- Comstock, R. D., Currie, D. W., Pierpoint, L. A., Grubenhoff, J. A., & Fields, S. K. (2015). An evidence-based discussion of heading the ball and concussions in high school soccer. *JAMA Pediatrics*, 169(9), 830-837. doi: 10.1001/jamapediatrics.2015.1062
- Cook, K. (2012, September 12). Dying to play. *New York Times*. Retrieved from: <https://www.nytimes.com/2012/09/12/opinion/head-injuries-in-football.html>
- Cousens, L., & Slack, T. (2005). Field-level change: The case of North American major league professional sport. *Journal of Sport Management*, 19(1), 13-42. doi: 10.1123/jsm.19.1.13.

- Covassin, T., Stearne, D., & Elbin III, R. (2008). Concussion history and postconcussion neurocognitive performance and symptoms in collegiate athletes. *Journal of Athletic Training, 43*(2), 119-124. doi: 10.4085/1062-6050-43.2.119.
- Covassin, T., Elbin, R. J., Harris, W., Parker, T., & Kontos, A. (2012). The role of age and sex in symptoms, neurocognitive performance, and postural stability in athletes after concussion. *The American Journal of Sports Medicine, 40*(6), 1303-1312. doi: 10.1177/0363546512444554.
- Creed, W. D., DeJordy, R., & Lok, J. (2010). Being the change: Resolving institutional contradiction through identity work. *Academy of Management Journal, 53*(6), 1336-1364. doi: 10.5465/amj.2010.57318357.
- Creed, W. E. D., Hudson, B. A., Okhuysen, G. A., & Smith-Crowe, K. (2014). Swimming in a sea of shame: Incorporating emotion into explanations of institutional reproduction and change. *Academy of Management Review, 39*(3), 275-301. doi: 10.5465/amr.2012.0074.
- Creed, W. D., Langstraat, J. A., & Scully, M. A. (2002). A picture of the frame: Frame analysis as technique and as politics. *Organizational Research Methods, 5*(1), 34-55. doi: 10.1177/1094428102051004.
- Cunningham, G. B. (2008). Creating and sustaining gender diversity in sport organizations. *Sex Roles, 58*(1-2), 136-145. doi: 10.1007/s11199-007-9312-3.
- Cunningham, G. B. (2009). Understanding the diversity-related change process: A field study. *Journal of Sport Management, 23*(4), 407-428. doi: 10.1123/jsm.23.4.407.
- Cunningham, G. B., & Ashley, F. B. (2001). Isomorphism in NCAA athletic departments: The use of competing theories and advancement of theory. *Sport Management Review, 4*(1), 47-63. doi: 10.1016/S1441-3523(01)70069-1.
- Cunningham, G. B., Sagas, M., & Ashley, F. B. (2001). Occupational commitment and intent to leave the coaching profession: Differences according to race. *International Review for the Sociology of Sport, 36*(2), 131-148. doi: 10.1177/101269001036002001.
- Dacin, M. T., Goodstein, J., & Scott, R. W. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal, 45*(1), 45-56. doi: 10.2307/3069284.
- Daneshvar, D. H., Riley, D. O., Nowinski, C. J., McKee, A. C., Stern, R. A., & Cantu, R. C. (2011). Long-term consequences: effects on normal development profile after concussion. *Physical Medicine and Rehabilitation Clinics, 22*(4), 683-700. doi: 10.1016/j.pmr.2011.08.009.

- Danisman, A., Hinings, C. R., & Slack, T. (2006). Integration and differentiation in institutional values: An empirical investigation in the field of Canadian national sport organizations. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 23(4), 301-317. doi: 10.1111/j.1936-4490.2006.tb00609.x.
- Danylchuk, K. E., & Chelladurai, P. (1999). The nature of managerial work in Canadian intercollegiate athletics. *Journal of Sport Management*, 13(2), 148-166. doi: 10.1123/jsm.13.2.148.
- David, R. J., Sine, W. D., & Haveman, H. A. (2013). Seizing opportunity in emerging fields: How institutional entrepreneurs legitimated the professional form of management consulting. *Organization Science*, 24(2), 356-377. doi: 10.1287/orsc.1120.0745.
- David, R. J., & Strang, D. (2006). When fashion is fleeting: Transitory collective beliefs and the dynamics of TQM consulting. *Academy of Management Journal*, 49(2), 215-233. doi: 10.5465/amj.2006.20786058.
- Davis, G. F., & Greve, H. R. (1997). Corporate elite networks and governance changes in the 1980s. *American Journal of Sociology*, 103(1), 1-37. doi: 10.1086/231170.
- Déjean, F., Gond, J. P., & Leca, B. (2004). Measuring the unmeasured: An institutional entrepreneur strategy in an emerging industry. *Human Relations*, 57(6), 741-764. doi: 10.1177/0018726704044954.
- Demil, B., & Bensédine, J. (2005). Processes of legitimization and pressure toward regulation: corporate conformity and strategic behavior. *International Studies of Management & Organization*, 35(2), 56-77. doi: 10.1080/00208825.2005.11043728.
- Diehl, D. (2007). The sports philanthropy project. *The Robert Wood Johnson Anthology*, 11, 1-15.
- DiMaggio, P. (1988). Interest and agency in institutional theory. In L. G. Zucker (Ed.), *Institutional patterns and organizations culture and environment*, 3-21. Cambridge, MA: Ballinger.
- DiMaggio, P. J., & Powell, W. W. (Eds.). (1991). *The new institutionalism in organizational analysis* (Vol. 17, pp. 1-38). Chicago, IL: University of Chicago Press.

- Djelic, M. L. (1998). *Exporting the American model: The post-war transformation of European business*. Oxford, UK: Oxford University Press.
- Dobbin, F., & Dowd, T. J. (1997). How policy shapes competition: Early railroad foundings in Massachusetts. *Administrative Science Quarterly*, 501-529. doi: 10.2307/2393736.
- Dobbin, F., Sutton, J. R., Meyer, J. W., & Scott, R. (1993). Equal opportunity law and the construction of internal labor markets. *American Journal of Sociology*, 99(2), 396-427. doi: 10.1086/230269.
- Dorado, S. (2005). Institutional entrepreneurship, partaking, and convening. *Organization Studies*, 26(3), 385-414. doi: 10.1177/0170840605050873.
- Dorado, S. (2013). Small groups as context for institutional entrepreneurship: An exploration of the emergence of commercial microfinance in Bolivia. *Organization Studies*, 34(4), 533-557. doi: 10.1177/0170840612470255.
- Dorado, S., & Ventresca, M. J. (2013). Crescive entrepreneurship in complex social problems: Institutional conditions for entrepreneurial engagement. *Journal of Business Venturing*, 28(1), 69-82. doi: 10.1016/j.jbusvent.2012.02.002.
- Doyle, W. R. (2006). Adoption of merit-based student grant programs: An event history analysis. *Educational Evaluation and Policy Analysis*, 28(3), 259-285. doi: 10.3102/01623737028003259.
- Edelman, L. B. (1992). Legal ambiguity and symbolic structures: Organizational mediation of civil rights law. *American journal of Sociology*, 97(6), 1531-1576. doi: doi/10.1086/229939.
- Edwards, J. R., Mason, D. S., & Washington, M. (2009). Institutional pressures, government funding and provincial sport organisations. *International Journal of Sport Management and Marketing*, 6(2), 128-149. doi: 10.1504/IJSMM.2009.028798.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550. doi: 10.2307/258557.
- Ellenbogen, R. G. (2014). Concussion advocacy and legislation: a neurological surgeon's view from the epicenter. *Neurosurgery*, 75 suppl\_4, S122-S130. doi: 10.1227/NEU.00000000000000495.

- Enjolras, B., & Waldahl, R. H. (2007). Policy-making in sport: the Norwegian case. *International Review for the Sociology of Sport*, 42(2), 201-216. doi: 10.1177/1012690207084753.
- Eskenazi, G. (1968, January 16). Pro hockey stunned by death of Minnesota player hurt in game. *New York Times*. Retrieved from: <https://www.nytimes.com/1968/01/16/archives/pro-hockey-stunned-by-death-of-minnesota-player-hurt-in-game.html>
- Farber, M. (1994, December 19). The worst case. *Sports Illustrated*. Retrieved from: <https://www.si.com/vault/1994/12/19/132920/the-worst-case-doctors-warn-that-repeated-concussions-can-lead-to-permanent-brain-dysfunction>
- Field, M., Collins, M. W., Lovell, M. R., & Maroon, J. (2003). Does age play a role in recovery from sports-related concussion? A comparison of high school and collegiate athletes. *The Journal of Pediatrics*, 142(5), 546-553. doi: 10.1067/mpd.2003.190.
- Fishback, P. V., & Kantor, S. E. (2007). *A prelude to the welfare state: The origins of workers' compensation*. Chicago, IL: University of Chicago Press.
- Fligstein, N. (1997). Social skill and institutional theory. *American Behavioral Scientist*, 40(4), 397-405. doi: 10.1177/0002764297040004003.
- Fligstein, N. (2001). Institutional entrepreneurs and cultural frames-The case of the European Union's Single Market Program. *European Societies*, 3(3), 261-287. doi: 10.1080/14616690120079332.
- Fligstein, N., & Mara-Drita, I. (1996). How to make a market: Reflections on the attempt to create a single market in the European Union. *American Journal of Sociology*, 102(1), 1-33. doi: 10.1086/230907.
- Football dead 14 with the new rules (1910, November 20), *New York Times*. Retrieved from: <https://www.nytimes.com/1910/11/20/archives/football-dead-14-with-the-new-rules-fewer-fatalities-and-bad.html>
- 40 players killed in football season (1931, December 6), *New York Times*. Retrieved from: <https://www.nytimes.com/1931/12/06/archives/40-players-killed-in-football-season-total-is-highest-in-modern.html>



- Freeman, M. (1997, September 7). Miller aims to prove his critics wrong. *New York Times*. Retrieved from: <https://www.nytimes.com/1997/09/07/sports/miller-aims-to-prove-his-critics-wrong.html>
- Freeman, M. (1994, November 24). Playing comes first, pain is second. *New York Times*, Retrieved from: <https://www.nytimes.com/1994/11/24/sports/pro-football-playing-comes-first-pain-is-second.html>
- Gammelsæter, H. (2010). Institutional pluralism and governance in “commercialized” sport clubs. *European Sport Management Quarterly*, 10(5), 569-594. doi: 10.1080/16184742.2010.524241.
- Garud, R., Hardy, C., & Maguire, S. (2007). Institutional entrepreneurship as embedded agency: An introduction to the special issue. *Organization Studies*, 28(07), 957-969. doi: 10.1177/0170840607078958.
- Garud, R., Jain, S., & Kumaraswamy, A. (2002). Institutional entrepreneurship in the sponsorship of common technological standards: The case of Sun Microsystems and Java. *Academy of Management Journal*, 45(1), 196-214. doi: 10.5465/3069292.
- Gilardi, F. (2004). Institutional change in regulatory policies: regulation through independent agencies and the three new institutionalisms. In J. Jordana & D. Levi-Faur (Eds.), *The politics of regulation: Institutions and regulatory reforms for the age of governance* (pp.67-90). Cheltenham: Edward Elgar.
- Gilligan, M. J. (1997). *Empowering exporters: reciprocity, delegation, and collective action in American trade policy* (No. 8). Ann Arbor, MI: University of Michigan Press.
- Giza, C. C., Kutcher, J. S., Ashwal, S., Barth, J., Getchius, T. S., Gioia, G. A., Gronseth, G. S., Guskiewicz, K., Mandel, S., Manley, G., McKeag, D. B., Thurman, D. J., Zafonte, R. (2013). Summary of evidence-based guideline update: Evaluation and management of concussion in sports report of the guideline development subcommittee of the American Academy of Neurology. *Neurology*, 80(24), 2250-2257. doi: 10.1212/WNL.0b013e31828d57dd.
- Green, M., & Houlihan, B. (2004). Advocacy coalitions and elite sport policy change in Canada and the United Kingdom. *International Review for the Sociology of Sport*, 39(4), 387-403. doi: 10.1177/1012690204049066.

- Godfrey, P. C. (2009). Corporate social responsibility in sport: An overview and key issues. *Journal of Sport Management*, 23(6), 698-716. doi: 10.1123/jsm.23.6.698.
- Goss, D. (2008). Enterprise ritual: a theory of entrepreneurial emotion and exchange. *British Journal of Management*, 19(2), 120-137. doi: 10.1111/j.1467-8551.2006.00518.x.
- Greenwood, R., & Suddaby, R. (2006). Institutional entrepreneurship in mature fields: The big five accounting firms. *Academy of Management Journal*, 49(1), 27-48. doi: 10.5465/amj.2006.20785498.
- Greenwood, R., Suddaby, R., & Hinings, C. R. (2002). Theorizing change: The role of professional associations in the transformation of institutionalized fields. *Academy of Management Journal*, 45(1), 58-80. doi: 10.2307/3069285.
- Gross, K. (2008). Framing persuasive appeals: Episodic and thematic framing, emotional response, and policy opinion. *Political Psychology*, 29(2), 169-192. doi: 10.1111/j.1467-9221.2008.00622.x.
- Guilianotti, R. (Ed.). (2013). *Football, violence and social identity*. Abingdon, UK: Routledge.
- Guskiewicz, K. M., Marshall, S. W., Bailes, J., McCrea, M., Cantu, R. C., Randolph, C., & Jordan, B. D. (2005). Association between recurrent concussion and late-life cognitive impairment in retired professional football players. *Neurosurgery*, 57(4), 719-726. doi: 10.1093/neurosurgery/57.4.719.
- Guskiewicz, K. M., Marshall, S. W., Bailes, J., McCrea, M., Harding, H. P., Matthews, A., Mihalik, J. R., & Cantu, R. C. (2007). Recurrent concussion and risk of depression in retired professional football players. *Medicine and Science in Sports and Exercise*, 39(6), 903-909. doi: 10.1249/mss.0b013e3180383da5.
- Halstead, M. E., & Walter, K. D. (2010). Clinical report—sport-related concussion in children and adolescents. *Pediatrics*, 126(3), 597-615. doi: 10.1542/peds.2010-2005.
- Hannigan, J. A. (1995). *Environmental sociology: A social constructionist perspective*. New York, NY: Routledge.
- Hardy, C., & Maguire, S. (2008). Institutional entrepreneurship. In R. Greenwood, C. Oliver, R. Suddaby, & K. Sahlin (Eds.), *The Sage handbook of organizational institutionalism* (pp.198-217). doi: 10.4135/9781849200387.n8.

- Hargrave, T. J., & Van de Ven, A. H. (2006). A collective action model of institutional innovation. *Academy of Management Review*, 31(4), 864-888. doi: 10.5465/amr.2006.22527458.
- Harrison, E. A. (2014). The first concussion crisis: Head injury and evidence in early American football. *American Journal of Public Health*, 104(5), 822-833. doi: 10.2105/AJPH.2013.301840.
- Haveman, H. A., Russo, M. V., & Meyer, A. D. (2001). Organizational environments in flux: The impact of regulatory punctuations on organizational domains, CEO succession, and performance. *Organization Science*, 12(3), 253-273. doi: 10.1287/orsc.12.3.253.10104.
- Heinze, K. L., & Lu, D. (2017). Shifting responses to institutional change: The National Football League and player concussions. *Journal of Sport Management*, 31(5), 497-513. doi: 10.1123/jsm.2016-0309.
- Heinze, K.L. & Soderstrom, S. (2017). Sport venue sustainability: the role of local context and stakeholder management. In T. Kellison & B. McCullough (Eds.), *The handbook of sport, sustainability, and the environment* (pp. 267-277). New York, NY: Routledge. doi: 10.4324/9781315619514.ch20.
- Heinze, K. L., Soderstrom, S., & Heinze, J. E. (2016). Translating institutional change to local communities: The role of linking organizations. *Organization Studies*, 37(8), 1141-1169. doi: 10.1177/0170840615622068.
- Heinze, K. L., & Weber, K. (2015). Toward organizational pluralism: Institutional intrapreneurship in integrative medicine. *Organization Science*, 27(1), 157-172. doi: 10.1287/orsc.2015.1028.
- Hensman M. (2003). Social movement organizations: A metaphor for strategic actors in institutional fields. *Organizational Studies*, 24(3), 355-381. doi: 10.1177/0170840603024003908.
- Hoffman, A. J. (1999). Institutional evolution and change: Environmentalism and the US chemical industry. *Academy of Management Journal*, 42(4), 351-371. doi: 10.5465/257008.
- Hoffman, A. J., & Ventresca, M. J. (2002). *Organizations, policy and the natural environment: institutional and strategic perspectives*. Palo Alto, CA: Stanford University Press.

- Hofstede, G. (1998). Attitudes, values and organizational culture: Disentangling the concepts. *Organization Studies*, 19(3), 477-493. doi: 10.1177/017084069801900305.
- Hums, M. A., & MacLean, J. C. (2017). *Governance and policy in sport organizations*. Milton Park, UK: Taylor & Francis.
- Hums, M. A., Moorman, A. M., & Wolff, E. A. (2003). The inclusion of the Paralympics in the Olympic and Amateur Sports Act: Legal and policy implications for integration of athletes with disabilities into the United States Olympic Committee and national governing bodies. *Journal of Sport and Social Issues*, 27(3), 261-275.
- Husted, B. W., Jamali, D., & Saffar, W. (2016). Near and dear? The role of location in CSR engagement. *Strategic Management Journal*, 37(10), 2050-2070. doi: 10.1002/smj.2437.
- Hwang, H., & Powell, W. W. (2005). Institutions and entrepreneurship. In S. A. Alvarez, R. Agarwal, & O. Sorenson (Eds.), *Handbook of entrepreneurship research* (pp. 201-232). New York, NY: Springer.
- Iyengar, S. (1996). Framing responsibility for political issues. *The Annals of the American Academy of Political and Social Science*, 546(1), 59-70. doi: 10.1177/0002716296546001006.
- Iyengar, S., & Simon, A. (1993). News coverage of the Gulf crisis and public opinion: A study of agenda-setting, priming, and framing. *Communication Research*, 20(3), 365-383. doi: 10.1177/009365093020003002.
- Jewell, M. E. (1969). *The state legislature: Politics and practice* (Vol. 37). New York, NY: Random House.
- Johnston, D. H. (1955, October 23). For safer football. *New York Times*. Retrieved from: <https://www.nytimes.com/1955/10/23/archives/for-safer-football.html>
- Jolly, S., & Raven, R. P. J. M. (2015). Collective institutional entrepreneurship and contestations in wind energy in India. *Renewable and Sustainable Energy Reviews*, 42, 999-1011.
- Kelly, D., & Amburgey, T. L. (1991). Organizational inertia and momentum: A dynamic model of strategic change. *Academy of Management Journal*, 34(3), 591-612. doi: 10.5465/256407.

- Kelly, J. P., Nichols, J. S., Filley, C. M., Lillehei, K. O., Rubinstein, D., & Kleinschmidt-DeMasters, B. K. (1991). Concussion in sports: guidelines for the prevention of catastrophic outcome. *Jama*, 266(20), 2867-2869. doi: 10.1001/jama.1991.03470200079039.
- Kezar, A., & Eckel, P. D. (2002). The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive concepts? *The Journal of Higher Education*, 73(4), 435-460. doi:10.1353/jhe.2002.0038.
- Kikulis, L. M. (2000). Continuity and change in governance and decision making in national sport organizations: Institutional explanations. *Journal of Sport Management*, 14(4), 293-320. doi: 10.1123/jsm.14.4.293.
- Kikulis, L. M., Slack, T., & Hinings, C. R. (1995). Toward an understanding of the role of agency and choice in the changing structure of Canada's national sport organizations. *Journal of Sport Management*, 9(2), 135-152. doi: 10.1123/jsm.9.2.135.
- King, B. G., & Soule, S. A. (2007). Social movements as extra-institutional entrepreneurs: The effect of protests on stock price returns. *Administrative Science Quarterly*, 52(3), 413-442. doi: 10.2189/asqu.52.3.413.
- Knight has concussion. (1987, April 30). *New York Times*. Retrieved from: <https://www.nytimes.com/1987/04/30/sports/sports-people-knight-has-concussion.html>
- Kodeih, F., & Greenwood, R. (2014). Responding to institutional complexity: The role of identity. *Organization Studies*, 35(1), 7-39. doi: 10.1177/0170840613495333.
- Kontos, A. P., Deitrick, J. M., Collins, M. W., & Mucha, A. (2017). Review of vestibular and oculomotor screening and concussion rehabilitation. *Journal of Athletic Training*, 52(3), 256-261. doi: 10.4085/1062-6050-51.11.05.
- Kostova, T., & Roth, K. (2002). Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of Management Journal*, 45(1), 215-233. doi: 10.5465/3069293.
- Kraatz, M. S., & Moore, J. H. (2002). Executive migration and institutional change. *Academy of Management Journal*, 45(1), 120-143. doi: 10.5465/3069288.

- Laker, S. R., Herring, S. A., & Adler, R. H. (2014). The legislative agenda. In R. Echemendia & G. L. Iverson (Eds.), *The Oxford handbook of sports-related concussion* (pp. 1-20). New York: Oxford University Press. doi: 10.1093/oxfordhb/9780199896585.013.9.
- Langley, A. N. N., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal*, 56(1), 1-13. doi: 10.5465/amj.2013.4001.
- Lau, B. C., Kontos, A. P., Collins, M. W., Mucha, A., & Lovell, M. R. (2011). Which on-field signs/symptoms predict protracted recovery from sport-related concussion among high school football players?. *The American Journal of Sports Medicine*, 39(11), 2311-2318. doi: 10.1177/0363546511410655.
- Lawrence, T. B., & Phillips, N. (2004). From Moby Dick to Free Willy: Macro-cultural discourse and institutional entrepreneurship in emerging institutional fields. *Organization*, 11(5), 689-711. doi: 10.1177/1350508404046457.
- Lawrence, T. B., & Suddaby, R. (2006). Institutions and institutional work. In S. R. Clegg, C. Hardy, T. B. Lawrence, & W. R. Nord (Eds.), *Handbook of organization studies* (pp. 215-254). London, UK: Sage.
- Lawrence, T. B., Winn, M. I., & Jennings, P. D. (2001). The temporal dynamics of institutionalization. *Academy of Management Review*, 26(4), 624-644. doi: 10.2307/3560245.
- Leblebici, H., Salancik, G. R., Copay, A., & King, T. (1991). Institutional change and the transformation of interorganizational fields: An organizational history of the US radio broadcasting industry. *Administrative Science Quarterly*, 36(3), 333-363. doi: 10.2307/2393200.
- Leca, B., Battilana, J., & Boxenbaum, E. (2008). Agency and institutions: A review of institutional entrepreneurship. *Academy of Management Annals*, 3, 65-107.
- Lee, K., & Pennings, J. M. (2002). Mimicry and the market: Adoption of a new organizational form. *Academy of Management Journal*, 45(1), 144-162. doi: 10.2307/3069289
- Lounsbury, M. (2001). Institutional sources of practice variation: Staffing college and university recycling programs. *Administrative Science Quarterly*, 46(1), 29-56. doi: 10.2307/2667124.

- Lounsbury, M. (2005). Institutional variation in the evolution of social movements. In J. Davis, D. McAdam, W. R. Scott, & M. Zald (Eds), *Social movements and organizational theory* (pp. 73-95). Oxford, UK: Oxford University Press. doi: 10.1017/CBO9780511791000.006.
- Lounsbury, M. (2007). A tale of two cities: Competing logics and practice variation in the professionalizing of mutual funds. *Academy of Management Journal*, 50(2), 289-307. doi: 10.2307/20159855.
- Lounsbury, M. (2008). Institutional rationality and practice variation: New directions in the institutional analysis of practice. *Accounting, Organizations and Society*, 33(4-5), 349-361. doi: 10.1016/j.aos.2007.04.001.
- Lounsbury, M., & Crumley, E. T. (2007). New practice creation: An institutional perspective on innovation. *Organization Studies*, 28(7), 993-1012. doi: 10.1177/0170840607078111.
- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, 22(6-7), 545-564. doi: 10.1002/smj.188.
- Lounsbury, M., Ventresca, M., & Hirsch, P. M. (2003). Social movements, field frames and industry emergence: a cultural-political perspective on US recycling. *Socio-Economic Review*, 1(1), 71-104. doi: 10.1093/sococo/1.1.71.
- Lowrey, K. M. (2015). State laws addressing youth sports-related traumatic brain injury and the future of concussion law and policy. *Journal of Business & Technology Law*, 10, 61-72.
- Macciocchi, S. N., Barth, J. T., & Littlefield, L. M. (1998). Outcome after mild head injury. *Clinics in Sports Medicine*, 17(1), 27-36.
- Maguire, S., & Hardy, C. (2006). The emergence of new global institutions: A discursive perspective. *Organization Studies*, 27(1), 7-29. doi: 10.1177/0170840606061807.
- Maguire, S., Hardy, C., & Lawrence, T. B. (2004). Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Academy of Management Journal*, 47(5), 657-679. doi: 10.2307/20159610.
- Maitlis, S., & Sonenshein, S. (2010). Sensemaking in crisis and change: Inspiration and insights from Weick. *Journal of Management Studies*, 47(3), 551-580. doi: 10.1111/j.1467-6486.2010.00908.x.

- Marano, V., & Kostova, T. (2016). Unpacking the institutional complexity in adoption of CSR practices in multinational enterprises. *Journal of Management Studies*, 53(1), 28-54. doi: 10.1111/joms.12124.
- Marar, M., McIlvain, N. M., Fields, S. K., & Comstock, R. D. (2012). Epidemiology of concussions among United States high school athletes in 20 sports. *The American Journal of Sports Medicine*, 40(4), 747-755. doi: 10.1177/0363546511435626.
- Maroon, J. C., Mathyssek, C., & Bost, J. (2014). Cerebral concussion: a historical perspective. *Concussion*, 28, 1-13. doi: 10.1159/000358746.
- Marquis, C., & Battilana, J. (2009). Acting globally but thinking locally? The enduring influence of local communities on organizations. *Research in Organizational Behavior*, 29, 283-302. doi: 10.1016/j.riob.2009.06.001.
- Marquis, C., Davis, G. F., & Glynn, M. A. (2013). Golfing alone? Corporations, elites, and nonprofit growth in 100 American communities. *Organization Science*, 24(1), 39-57. doi: 10.1287/orsc.1110.0717.
- Marquis, C., Glynn, M. A., & Davis, G. F. (2007). Community isomorphism and corporate social action. *Academy of Management Review*, 32(3), 925-945. doi: 10.5465/amr.2007.25275683.
- Marquis, C., & Lounsbury, M. (2007). Vive la résistance: Competing logics and the consolidation of US community banking. *Academy of Management Journal*, 50(4), 799-820. doi: 10.5465/amj.2007.26279172.
- Marquis, C., Lounsbury, M., & Greenwood, R. (2011). Introduction: Community as an institutional order and a type of organizing. In C. Marquis, M. Lounsbury, & R. Greenwood (Eds.), *Communities and organizations* (pp. ix-xxvii). Bingley, UK: Emerald Group Publishing Limited. doi: 10.1108/S0733-558X%282011%290000033003.
- Mason, D. S., Thibault, L., & Misener, L. (2006). An agency theory perspective on corruption in sport: The case of the International Olympic Committee. *Journal of Sport Management*, 20(1), 52-73. doi: 10.1123/jsm.20.1.52.
- McCrea, M., Guskiewicz, K. M., Marshall, S. W., Barr, W., Randolph, C., Cantu, R. C., Ontate, J. A., Yang, J., & Kelly, J. P. (2003). Acute effects and recovery time following concussion in collegiate football players: the NCAA Concussion Study. *Jama*, 290(19), 2556-2563. doi: 10.1001/jama.290.19.2556.



- McCrea, M., Hammeke, T., Olsen, G., Leo, P., & Guskiewicz, K. (2004). Unreported concussion in high school football players: implications for prevention. *Clinical Journal of Sport Medicine*, 14(1), 13-17. doi: 10.1097/00042752-200401000-00003.
- McKee, A. C., Cantu, R. C., Nowinski, C. J., Hedley-Whyte, E. T., Gavett, B. E., Budson, A. E., Santini, V. E., Lee, H. S., Kubilus, C. A., & Stern, R. A. (2009). Chronic traumatic encephalopathy in athletes: progressive tauopathy after repetitive head injury. *Journal of Neuropathology & Experimental Neurology*, 68(7), 709-735. doi: 10.1097/NEN.0b013e3181a9d503.
- McCrory, P., Johnston, K., Meeuwisse, W., Aubry, M., Cantu, R., Dvorak, J., Graf-Baumann, T., Kelly, J., Lovell, M., & Schamasch, P. (2005). Summary and agreement statement of the 2nd International Conference on Concussion in Sport, Prague 2004. *British Journal of Sports Medicine*, 39(suppl 1), i78-i86. doi: 10.1136/bjsm.2005.018614.
- McCrory, P., Meeuwisse, W. H., Kutcher, J. S., Jordan, B. D., & Gardner, A. (2013). What is the evidence for chronic concussion-related changes in retired athletes: behavioural, pathological and clinical outcomes?. *Br J Sports Med*, 47(5), 327-330. doi: 10.1136/bjsports-2013-092248.
- McCrory, P., Meeuwisse, W. H., Aubry, M., Cantu, B., Dvořák, J., Echemendia, R. J., Engebretsen, L., Lars, Johnston, K., Kutcher, J. S., Raftery, M., Sills, A., Benson, B. W., Davis, G. A., Ellenbogen, R. G., Guskiewicz, K., Herring, S. A., Iverson, G. L., Jordan, B. D., Kissick, J., McCrea, M., McIntosh, A. S., Maddocks, D., Makdissi, M., Purcell, L., Putukian, M., Schneider, K., Tator, C. H., & Turner, M. (2013). Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012. *Br J Sports Med*, 47(5), 250-258. doi: 10.1136/bjsports-2013-092313.
- McCrory, P., Meeuwisse, W., Dvorak, J., Aubry, M., Bailes, J., Broglio, S., Cantu, R. C., Cassidy, D., Echemendia, R. J., Castellani, R., J., Davis, G. A., Ellenbogen, R., Emery, C., Engebretsen, L., Feddermann-Demont, N., Giza, C. C., Guskiewicz, K. M., Herring, S., Iverson, G. L., Johnston, K. M., Kissick, J., Kutcher, J., Leddy, J. J., Maddocks, D., Makdissi, M., Manley, G. T., McCrea, M., Meehan, W. P., Nagahiro, S., Patricios, J., Putukian, M., Schneider, K. J., Sills, A., Tator, C. H., Turner, M., & Vos, P. E. (2017). Consensus statement on concussion in sport—the 5th international conference on concussion in sport held in Berlin, October 2016. *Br J Sports Med*, 51(11), 838-847. doi: 10.1136/bjsports-2017-097699.

- McLendon, M. K., Heller, D. E., & Young, S. P. (2005). State postsecondary policy innovation: Politics, competition, and the interstate migration of policy ideas. *The Journal of Higher Education*, 76(4), 363-400. doi:10.1353/jhe.2005.0029.
- McNutt, J. G., & Boland, K. M. (1999). Electronic advocacy by nonprofit organizations in social welfare policy. *Nonprofit and Voluntary Sector Quarterly*, 28(4), 432-451. doi: 10.1177/0899764099284004.
- McQuilkin, S. A., & Smith, R. A. (1993). The Rise and Fall of the Flying Wedge: Football's Most Controversial Play. *Journal of Sport History*, 20(1), 57-64.
- Meyer, A. D. (1982). Adapting to environmental jolts. *Administrative Science Quarterly*, 27(4), 515-537. doi: 10.2307/2392528.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363. doi: 10.1086/226550.
- Miles, M. B., Huberman, A. M., & Saldana J. (1994). *Qualitative data analysis: An expanded sourcebook*. Newcastle, UK: Sage.
- Miller, T. L., Grimes, M. G., McMullen, J. S., & Vogus, T. J. (2012). Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of Management Review*, 37(4), 616-640. doi: 10.5465/amr.10.0456.
- Mills, M. (2011). *Introducing survival and event history analysis*. Newcastle, UK: Sage.
- Mintrom, M., & Vergari, S. (1996). Advocacy coalitions, policy entrepreneurs, and policy change. *Policy Studies Journal*, 24(3), 420-434. doi: 10.1111/j.1541-0072.1996.tb01638.x.
- Mintz, B., & Palmer, D. (2000). Business and health care policy reform in the 1980s: the 50 states. *Social Problems*, 47(3), 327-359. doi: 10.2307/3097234.
- Möllering, G. (2007). Organizing for market constitution: uncertainty and collective institutional entrepreneurship. *Annual Meeting of the Academy of Management*. Retrieved from: [https://www.researchgate.net/profile/Guido\\_Moellering/publication/228751799\\_Organizing\\_for\\_market\\_constitution\\_uncertainty\\_and\\_collective\\_institutional\\_entrepreneurship/links/0deec52a9dbcaf18b8000000.pdf](https://www.researchgate.net/profile/Guido_Moellering/publication/228751799_Organizing_for_market_constitution_uncertainty_and_collective_institutional_entrepreneurship/links/0deec52a9dbcaf18b8000000.pdf)

- Moisander, J. K., Hirsto, H., & Fahy, K. M. (2016). Emotions in institutional work: A discursive perspective. *Organization Studies*, 37(7), 963-990. doi: 10.1177/0170840615613377.
- Molotch, H., Freudenburg, W., & Paulsen, K. E. (2000). History repeats itself, but how? City character, urban tradition, and the accomplishment of place. *American Sociological Review*, 791-823. doi: 10.2307/2657514.
- Mooney, G., Speed, J., & Sheppard, S. (2005). Factors related to recovery after mild traumatic brain injury. *Brain Injury*, 19(12), 975-987. doi: 10.1080/02699050500110264.
- Moore, S. (1984). Management of a pneumothorax in a football player: A case report. *Athletic Training*, 19(2), 129-130.
- Moser, R. S., & Schatz, P. (2002). Enduring effects of concussion in youth athletes. *Archives of Clinical Neuropsychology*, 17(1), 91-100. doi: 10.1016/S0887-6177(01)00108-1.
- Munir, K. A. (2005). The social construction of events: A study of institutional change in the photographic field. *Organization Studies*, 26(1), 93-112. doi: 10.1177/0170840605049463.
- Munir, K. A., & Phillips, N. (2005). The birth of the 'Kodak Moment': Institutional entrepreneurship and the adoption of new technologies. *Organization Studies*, 26(11), 1665-1687. doi: 10.1177/0170840605056395.
- Nagel, S., Schlesinger, T., Bayle, E., & Giauque, D. (2015). Professionalisation of sport federations—a multi-level framework for analysing forms, causes and consequences. *European Sport Management Quarterly*, 15(4), 407-433. doi: 10.1080/16184742.2015.1062990.
- Naraine, M. L., & Parent, M. M. (2016). “Birds of a Feather”: An Institutional Approach to Canadian National Sport Organizations’ Social-Media Use. *International Journal of Sport Communication*, 9(2), 140-162. doi: 10.1123/ijsc.2016-0010.
- NBA fines Mahorn (1989, March 4). *New York Times*. Retrieved from: <https://www.nytimes.com/1989/03/04/sports/sports-people-basketball-nba-fines-mahorn.html>
- Neumann, R. (1989, July 30). Truth didn’t understand the consequences. *New York Times*. Retrieved from: <https://www.nytimes.com/1989/07/30/sports/view-of-sport-truth-didnt-understand-the-consequences.html>

- Nigam, A., & Ocasio, W. (2010). Event attention, environmental sensemaking, and change in institutional logics: An inductive analysis of the effects of public attention to Clinton's health care reform initiative. *Organization Science*, 21(4), 823-841. doi: 10.1287/orsc.1090.0490.
- Nocera, J. (2012, December 14). Should kids play football? *New York Times*. Retrieved from: <https://www.nytimes.com/2012/12/15/opinion/should-kids-play-football.html>
- Notebaert, A. J., & Guskiewicz, K. M. (2005). Current trends in athletic training practice for concussion assessment and management. *Journal of Athletic Training*, 40(4), 320-325.
- O'Brien, D., & Slack, T. (1999). Deinstitutionalising the amateur ethic: An empirical examination of change in a rugby union football club. *Sport Management Review*, 2(1), 24-42. doi: 10.1016/S1441-3523(99)70088-4.
- O'Brien, D., & Slack, T. (2003). An analysis of change in an organizational field: The professionalization of English rugby union. *Journal of Sport Management*, 17(4), 417-448. doi: 10.1123/jsm.17.4.417.
- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16(1), 145-179. doi: 10.2307/258610.
- Omalu, B. I., DeKosky, S. T., Minster, R. L., Kamboh, M. I., Hamilton, R. L., & Wecht, C. H. (2005). Chronic traumatic encephalopathy in a National Football League player. *Neurosurgery*, 57(1), 128-134. doi: 10.1227/01.NEU.0000245601.69451.27.
- Omalu, B. I., Hamilton, R. L., Kamboh, M. I., DeKosky, S. T., & Bailes, J. (2010). Chronic traumatic encephalopathy (CTE) in a National Football League Player: Case report and emerging medicolegal practice questions. *Journal of Forensic Nursing*, 6(1), 40-46. doi: 10.1111/j.1939-3938.2009.01064.x.
- Oregon Senate Bill 348, Ore. Assemb. (2009) (Ore. Stat. 2009). Retrieved from: <https://olis.leg.state.or.us/liz/2009R1/Downloads/MeasureDocument/SB348>.
- Pache, A. C., & Santos, F. (2010). When worlds collide: The internal dynamics of organizational responses to conflicting institutional demands. *Academy of Management Review*, 35(3), 455-476. doi: 10.5465/amr.35.3.zok455.
- Pacheco, D. F., York, J. G., Dean, T. J., & Sarasvathy, S. D. (2010). The coevolution of institutional entrepreneurship: A tale of two theories. *Journal of Management*, 36(4), 974-1010. doi: 10.1177/0149206309360280.

- Patterson, K. D., Arthur, M., & Washington, M. (2016). Success and failure in rigid environments: How marginalized actors used institutional mechanisms to overcome barriers to change in golf. In J. Gehman, M. Lounsbury, & R. Greenwood (Eds.), *Research in the sociology of organizations* (pp. 273-301). Bingley, UK: Emerald Group Publishing Limited. doi: 10.1108/S0733-558X201600048A009.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Newcastle, UK: Sage.
- Pe'Er, A., & Gottschalg, O. (2011). Red and Blue: the relationship between the institutional context and the performance of leveraged buyout investments. *Strategic Management Journal*, 32(12), 1356-1367. doi: 10.1002/smj.934.
- Pellman, E. J., Lovell, M. R., Viano, D. C., & Casson, I. R. (2006). Concussion in professional football: recovery of NFL and high school athletes assessed by computerized neuropsychological testing—part 12. *Neurosurgery*, 58(2), 263-274. doi: 10.1227/01.NEU.0000200272.56192.62.
- Pentifallo, C., & VanWynsberghe, R. (2012). Blame it on Rio: isomorphism, environmental protection and sustainability in the Olympic Movement. *International Journal of Sport Policy and Politics*, 4(3), 427-446. doi: 10.1080/19406940.2012.694115.
- Perkmann, M. (2002). Euroregions: institutional entrepreneurship in the European Union. In M. Perkmann & N. Sum (Eds.), *Globalization, regionalization and cross-border regions* (pp. 103-124). Basingstoke, UK: Palgrave Macmillan.
- Perkmann, M., & Spicer, A. (2007). Healing the scars of history': Projects, skills and field strategies in institutional entrepreneurship. *Organization Studies*, 28(7), 1101-1122. doi: 10.1177/0170840607078116.
- Perkmann, M., & Spicer, A. (2008). How are management fashions institutionalized? The role of institutional work. *Human Relations*, 61(6), 811-844. doi:10.1177/0018726708092406.
- Phelps, S., & Kent, A. (2010). Isomorphism and choice in the creation and development of an international sports federation: a review of the International Triathlon Union. *International Journal of Sport Management and Marketing*, 8(3-4), 277-295. doi: 10.1504/IJSMM.2010.037509.
- President Eliot on Athletics (1895, February 6). *The Stanford Daily*. Retrieved from: <https://stanforddailyarchive.com/cgi-bin/stanford?a=d&d=stanford18950206-01.2.21&e=01-01-1940-31-12-1949--en-20--1--txt-txTI-journalist-----#>

- Quatman, C., & Chelladurai, P. (2008). Social network theory and analysis: A complementary lens for inquiry. *Journal of Sport Management*, 22(3), 338-360. doi:10.1123/jsm.22.3.338
- Rao, H. (1998). Caveat emptor: The construction of nonprofit consumer watchdog organizations. *American Journal of Sociology*, 103(4), 912-961. doi: 10.1086/231293.
- Rao, H., & Giorgi, S. (2006). Code breaking: How entrepreneurs exploit cultural logics to generate institutional change. *Research in Organizational Behavior*, 27, 269-304. doi: 10.1016/S0191-3085(06)27007-2.
- Ratten, V. (2011). Sport-based entrepreneurship: towards a new theory of entrepreneurship and sport management. *International Entrepreneurship and Management Journal*, 7(1), 57-69. doi: 10.1007/s11365-010-0138-z.
- Reid, E. J. (2006). Advocacy and the challenges it presents for nonprofits. In E. Boris & C. Steuerle (Eds.), *Nonprofits and government: Collaboration and conflict*, (pp. 343-371). Washington, DC: Urban Institute Press.
- Reid, P., Washington, M., Mason, D. S., & Glaser, V. (2018). The role of institutional entrepreneurs in new ventures: The emergence of women's elite hockey. *Academy of Management Proceedings*, 1, 17514. doi: 10.5465/AMBPP.2018.17514abstract.
- Reynolds, G. (2010, September 22). Phys ed: looking at how concussions when young influence later life. *New York Times*. Retrieved from: <https://well.blogs.nytimes.com/2010/09/22/can-concussions-in-kids-cause-problems-later-in-life/>
- Rhoden, W. C. (2009, November 14). Paying a price for playing in the moment. *New York Times*. Retrieved from: <https://www.nytimes.com/2009/11/15/sports/football/15rhoden.html?mtrref=www.google.com>
- Rogers, E. M. (2003). *Diffusion of innovations (5<sup>th</sup> edition)*. New York, NY: Free Press.
- Rogers, T. (1986, March 7). Some good news about football. *New York Times*. Retrieved from: <https://www.nytimes.com/1986/03/07/sports/scouting-some-good-news-about-football.html>
- Rosenson, B. A. (2006). The impact of ethics laws on legislative recruitment and the occupational composition of state legislatures. *Political Research Quarterly*, 59(4), 619-627. doi: 10.1177/106591290605900411.

- Ruef, M., & Scott, W. R. (1998). A multidimensional model of organizational legitimacy: Hospital survival in changing institutional environments. *Administrative Science Quarterly*, 877-904. doi: 10.2307/2393619.
- Sabatier, P. A. (1988). An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sciences*, 21(2-3), 129-168.
- Sage, G. H. (1999). Justice do it! The Nike transnational advocacy network: Organization, collective actions, and outcomes. *Sociology of Sport Journal*, 16(3), 206-235. doi: 10.1123/ssj.16.3.206.
- Saka-Helmhout, A., & Geppert, M. (2011). Different forms of agency and institutional influences within multinational enterprises. *Management International Review*, 51(5), 567-592. doi: 10.1007/s11575-011-0091-2.
- Santo, C., & Mildner, G. (2010). *Sport and public policy: Social, political, and economic perspectives*. Windsor, ON: Human Kinetics.
- Sarmiento, K., Hoffman, R., Dmitrovsky, Z., & Lee, R. (2014). A 10-year review of the Centers for Disease Control and Prevention's Heads Up initiatives: Bringing concussion awareness to the forefront. *Journal of Safety Research*, 50, 143-147. doi: 10.1016/j.jsr.2014.05.003.
- Schlager, E. (1995). Policy making and collective action: Defining coalitions within the advocacy coalition framework. *Policy Sciences*, 28(3), 243-270. doi: 10.1007/BF01000289.
- Schneiberg, M., & Soule, S. A. (2005). Institutionalization as a contested, multilevel process: The case of rate regulation in American fire insurance. In G. F. Davis, D. McAdam, W. R. Scott, & M. N. Zald (Eds.). *Social movements and organization theory* (pp. 122-160). Cambridge, UK: Cambridge University Press. doi: 10.1017/CBO9780511791000.008.
- Schwarz, A. (2007, June 15). Lineman, dead at 36, exposes brain injuries. *New York Times*. Retrieved from: <https://www.nytimes.com/2007/06/15/sports/football/15brain.html>
- Schwarz, A. (2009, October 28). NFL scolded over injuries to its players. *New York Times*. Retrieved from: <https://www.nytimes.com/2009/10/29/sports/football/29hearing.html>
- Schwarz, A. (2009, December 10). Football analysts cast a new eye on injuries. *New York Times*. Retrieved from:

<https://www.nytimes.com/2009/12/11/sports/football/11concussions.html>

- Schwarz, A. (2010, Jun 1). N.F.L. Concussion Panel Breaks With Its Predecessor. *New York Times*. Retrieved from <http://www.nytimes.com/2010/06/02/sports/football/02concussion.html?mtrref=www.google.com&gwh=8052ABE03104FD5E1492BCD831769CED&gwt=pay>
- Schwarz, A. (2010, September 14). Suicide reveals signs of a disease seen in NFL. *New York Times*. Retrieved from: <https://www.nytimes.com/2010/09/14/sports/14football.html>
- Schwarz, A. (2010, September 18). Penn player's mother to testify about concussions in congressional hearing. *New York Times*. Retrieved from: <https://www.nytimes.com/2010/09/18/sports/18concussions.html>
- Scott, W. R. (2001). *Institutions and Organizations*. Thousand Oaks: Sage.
- Scott, W. R. (2008). *Institutions and organizations: Ideas and interests*. Sage.
- Silk, M. L., & Amis, J. (2000). Institutional pressures and the production of televised sport. *Journal of Sport Management*, 14(4), 267-292. doi: 10.1123/jsm.14.4.267.
- Silk, M., Slack, T., & Amis, J. (2000). Bread, butter and gravy: An institutional approach to televised sport production. *Culture, Sport, Society*, 3(1), 1-21. doi: 10.1080/14610980008721859.
- Sine, W. D., & David, R. J. (2003). Environmental jolts, institutional change, and the creation of entrepreneurial opportunity in the US electric power industry. *Research Policy*, 32(2), 185-207. doi: 10.1016/S0048-7333(02)00096-3.
- Sine, W. D., & Lee, B. H. (2009). Tilting at windmills? The environmental movement and the emergence of the US wind energy sector. *Administrative Science Quarterly*, 54(1), 123-155. doi: 10.2189/asqu.2009.54.1.123.
- Skille, E. Å. (2011). Change and isomorphism—A case study of translation processes in a Norwegian sport club. *Sport Management Review*, 14(1), 79-88. doi: 10.1016/j.smr.2010.03.002.
- Slack, T., & Hinings, B. (1992). Understanding change in national sport organizations: An integration of theoretical perspectives. *Journal of Sport Management*, 6(2), 114-132. doi: 10.1123/jsm.6.2.114.



- Slack, T., & Hinings, B. (1994). Institutional pressures and isomorphic change: An empirical test. *Organization Studies*, 15(6), 803-827. doi: 10.1177/017084069401500602.
- Smith, T. W. (1995, December 10). Modell faces hurdles before Browns move. *New York Times*. Retrieved from: <https://www.nytimes.com/1995/12/10/sports/football-notebook-modell-faces-hurdles-before-browns-move.html>
- Sosnoff, J. J., Broglio, S. P., & Ferrara, M. S. (2008). Cognitive and motor function are associated following mild traumatic brain injury. *Experimental Brain Research*, 187(4), 563-571. doi: 10.1007/s00221-008-1324-x.
- Sotiriadou, P., & Wicker, P. (2013). Community sports clubs' responses to institutional and resource dependence pressures for government grants. *Annals of Leisure Research*, 16(4), 297-314. doi: 10.1080/11745398.2013.853338.
- Soule, S. A., & King, B. G. (2006). The stages of the policy process and the equal rights amendment, 1972–1982. *American Journal of Sociology*, 111(6), 1871-1909. doi: 10.1086/499908.
- Soule, S. A., & Zylan, Y. (1997). Runaway train? The diffusion of state-level reform in ADC/AFDC eligibility requirements, 1950–1967. *American Journal of Sociology*, 103(3), 733-762. doi: 10.1086/231254.
- Stein, T. D., Alvarez, V. E., & McKee, A. C. (2015). Concussion in chronic traumatic encephalopathy. *Current Main and Headache Reports*, 19(10), 47-52. doi: 10.1007/s11916-015-0522-z.
- Stern, R. A., Riley, D. O., Daneshvar, D. H., Nowinski, C. J., Cantu, R. C., & McKee, A. C. (2011). Long-term consequences of repetitive brain trauma: chronic traumatic encephalopathy. *Pm&r*, 3(10), S460-S467. doi: 10.1016/j.pmrj.2011.08.008.
- Stevens, J. A., & Slack, T. (1998). Integrating social action and structural constraints: Towards a more holistic explanation of organizational change. *International Review for the Sociology of Sport*, 33(2), 143-154. doi: 10.1177/101269098033002002.
- Strauss, B. (2015, June 8). Former soccer player sues Illinois, saying concussions was mishandled. *New York Times*, retrieved from: <https://www.nytimes.com/2015/06/09/sports/soccer/former-soccer-player-sues-illinois-saying-concussion-was-mishandled.html>

- Suddaby, R., Elsbach, K. D., Greenwood, R., Meyer, J. W., & Zilber, T. B. (2010). Organizations and their institutional environments—Bringing meaning, values, and culture back in: Introduction to the special research forum. *Academy of Management Journal*, 53(6), 1234-1240. doi: 10.2139/ssrn.2266086.
- Suddaby, R., & Greenwood, R. (2005). Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50(1), 35-67. doi: 10.2189/asqu.2005.50.1.35.
- Thompson, V. (1965). Bureaucracy and innovation. *Administrative Science Quarterly*, 10(1), 1-20. doi:10.2307/2391646.
- Thornton, P. H., & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology*, 105(3), 801-843. doi: 10.1086/210361.
- Thornton, P. H., & Ocasio, W. (2008). Institutional logics. In R. Greenwood, C. Oliver, R. Suddaby, & K. Shalin-Andersson (Eds.). *The sage handbook of organizational institutionalism*, 840, 99-128.
- Tilcsik, A. (2011). Pride and prejudice: Employment discrimination against openly gay men in the United States. *American Journal of Sociology*, 117(2), 586-626. doi: 10.1086/661653.
- Tomei, K. L., Doe, C., Prestigiacomo, C. J., & Gandhi, C. D. (2012). Comparative analysis of state-level concussion legislation and review of current practices in concussion. *Neurosurgical Focus*, 33(6), 1-9. doi: 10.3171/2012.9.FOCUS12280.
- Tracey, P., Phillips, N., & Jarvis, O. (2011). Bridging institutional entrepreneurship and the creation of new organizational forms: A multilevel model. *Organization Science*, 22(1), 60-80. doi: 10.1287/orsc.1090.0522.
- Trendafilova, S., Babiak, K., & Heinze, K. (2013). Corporate social responsibility and environmental sustainability: Why professional sport is greening the playing field. *Sport Management Review*, 16(3), 298-313. doi: 10.1016/j.smr.2012.12.006.
- Vecsey, D. (2011, November 21). College athletes move concussions into the courtroom. *New York Times*. Retrieved from: <https://www.nytimes.com/2011/11/30/sports/ncaafootball/college-players-move-concussions-issue-into-the-courtroom.html>

- Vogus, T. J., & Davis, G. F. (2005). Elite mobilizations for antitakeover legislation, 1982–1990. In G. F. Davis, D. McAdam, W. R. Scott, & M. N. Zald (Eds.). *Social movements and organization theory* (pp. 96-121). Cambridge, UK: Cambridge University Press.
- Volden, C. (2006). States as policy laboratories: Emulating success in the children's health insurance program. *American Journal of Political Science*, 50(2), 294-312. doi: 10.1111/j.1540-5907.2006.00185.
- Voronov, M., & Vince, R. (2012). Integrating emotions into the analysis of institutional work. *Academy of Management Review*, 37(1), 58-81. doi: 10.5465/amr.2010.0247.
- Vos, S., Breesch, D., Késenne, S., Van Hoecke, J., Vanreusel, B., & Scheerder, J. (2011). Governmental subsidies and coercive pressures. Evidence from sport clubs and their resource dependencies. *European Journal for Sport and Society*, 8(4), 257-280. doi: 10.1080/16138171.2011.11687882.
- Wade-Benzoni, K. A., Hoffman, A. J., Thompson, L. L., Moore, D. A., Gillespie, J. J., & Bazerman, M. H. (2002). Barriers to resolution in ideologically based negotiations: The role of values and institutions. *Academy of Management Review*, 27(1), 41-57. doi: 10.5465/amr.2002.5922336.
- Walker, J. L. (1969). The diffusion of innovations among the American states. *American Political Science Review*, 63(3), 880-899. doi: 10.2307/1954434.
- Wallace, W. N. (1989, December 11). Steelers too tough for Jets. *New York Times*. Retrieved from: <https://www.nytimes.com/1989/12/11/sports/steelers-too-tough-for-jets.html>
- Wang, P., & Swanson, E. B. (2007). Launching professional services automation: Institutional entrepreneurship for information technology innovations. *Information and Organization*, 17(2), 59-88. doi: 10.1016/j.infoandorg.2007.02.001.
- Washington, M. (2004). Field approaches to institutional change: The evolution of the National Collegiate Athletic Association 1906–1995. *Organization Studies*, 25(3), 393-414. doi: 10.1177/0170840604040042.
- Washington, M., & Patterson, K. D. (2011). Hostile takeover or joint venture: Connections between institutional theory and sport management research. *Sport Management Review*, 14(1), 1-12. doi: 10.1016/j.smr.2010.06.003.

- Washington, M., & Ventresca, M. J. (2004). How organizations change: The role of institutional support mechanisms in the incorporation of higher education visibility strategies, 1874–1995. *Organization Science*, 15(1), 82-97. doi: 10.1287/orsc.1030.0057.
- Washington, M., & Ventresca, M. J. (2008). Institutional contradictions and struggles in the formation of US collegiate basketball, 1880–1938. *Journal of Sport Management*, 22(1), 30-49. doi: 10.1123/jsm.22.1.30.
- Washington Youth Sports Head Injury Policies, Was. Assemb. B. 1824 (2009), Chapter 475 (Was. Stat. 2009). Retrieved from: <http://lawfilesexternal.wa.gov/biennium/2009-10/Pdf/Bills/Session%20Laws/House/1824.SL.pdf?cite=2009%20c%20475%20%20C2%A7%202>.
- Watterson, J. S. (1995). The Death of Archer Christian: College Presidents and the Reform of College Football. *Journal of Sport History*, 22(2), 149-167. Retrieved from: [https://www.jstor.org/stable/43609616?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/43609616?seq=1#page_scan_tab_contents)
- Watterson, J. S. (2002). *College football: History, spectacle, controversy*. Baltimore, MD: Johns Hopkins University Press.
- Welter, F., & Smallbone, D. (2011). Institutional perspectives on entrepreneurial behavior in challenging environments. *Journal of Small Business Management*, 49(1), 107-125. doi: 10.1111/j.1540-627X.2010.00317.x.
- Westphal, J. D., Gulati, R., & Shortell, S. M. (1997). Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption. *Administrative Science Quarterly*, 366-394. doi: 10.2307/2393924.
- Wetjen, N. M., Pichelmann, M. A., & Atkinson, J. L. (2010). Second impact syndrome: concussion and second injury brain complications. *Journal of the American College of Surgeons*, 211(4), 553-557. doi: 10.1016/j.jamcollsurg.2010.05.020.
- Wijen, F., & Ansari, S. (2007). Overcoming inaction through collective institutional entrepreneurship: Insights from regime theory. *Organization Studies*, 28(7), 1079-1100. doi: 10.1177/0170840607078115.
- Williamson, I. B. (1964). 1964 rule changes. *BGSU Football Program: September 19, 1964*, 29-31. Retrieved from: [https://scholarworks.bgsu.edu/cgi/viewcontent.cgi?article=1094&context=football\\_programs](https://scholarworks.bgsu.edu/cgi/viewcontent.cgi?article=1094&context=football_programs)

- Woolfolk, J. (2018, February 9). California lawmakers want to ban tackle football until high school. *Mercury News*. Retrieved from: <https://www.mercurynews.com/2018/02/09/california-lawmakers-want-to-ban-tackle-football-until-high-school/>.
- Yin, R.K. (2009). Case Study Research: Design and Methods. In L Bickman & D.J. Rog (Eds.), *Essential guide to qualitative methods in organization research*. Newcastle, UK: Sage.
- Yin, R. K. (2015). *Qualitative research from start to finish*. New York, NY: Guilford Press.
- Zietsma, C., & Lawrence, T. B. (2010). Institutional work in the transformation of an organizational field: The interplay of boundary work and practice work. *Administrative Science Quarterly*, 55(2), 189-221. doi: 10.2189/asqu.2010.55.2.189.
- Zilber, T. B. (2007). Stories and the discursive dynamics of institutional entrepreneurship: The case of Israeli high-tech after the bubble. *Organization Studies*, 28(7), 1035-1054. doi: 10.1177/0170840607078113.